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JAMAICA.

ANNUAL REPORT

OF THE

SUPERINTENDING MEDICAL OFFICER,

Together with the Reports on the following Departments of the Medical Service of the Island, viz:

THE PUBLIC HOSPITAL	THE LUNATIC ASYLUM
THE LYING-IN HOSPITAL	THE LEPERS' HOME

FOR

THE YEAR ENDED 31ST MARCH, 1913.

Ordered by His Excellency the Governor to be Printed.

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GOVERNMENT PRINTING OFFICE, KINGSTON.
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ISLAND MEDICAL DEPARTMENT.

Report for the year ended 31st March, 1913.

Island Medical Office, Kingston, July 23rd, 1913.

Sir,

I have the honour to forward the accompanying returns, reports, and information, for the information of His Excellency the Governor embracing the financial year which began on April 1st 1912, and which ended on March 31st 1913.

Appointments.

Dr. C. E. Sharp was, at his own request, transferred from the St. David's District, to the Gordon Town District as D. M. O. as from April 1st.

Dr. A. T. Clarke, who had been placed in charge of an Outstation at Hope Bay was appointed to act on a year's probation to the St. David's District as D. M. O. as from 6th April 1912.

Dr. W. G. Farquharson, was at his own request transferred from Port Maria to be D. M. O. of the Christiana District (vice Dr. E. V. Halliday resigned) as from 1st October 1912.

Dr. F. A. Ritchie, was on application transferred from the Annotto Bay District to the Richmond District, with the right to receive Coolie fees, as from 1st January 1913.

Dr. H. Joslen, was on application transferred from St. Ann's Bay district to the Annotto Bay distrcit with right to receive Coolie fees as from 1st January 1913.

Dr. G. I. Lecesne was transferred on application with the right to coolie fees, from the Gayle district to the Port Maria District as from 26th November 1912.

Dr. C. S. Gideon, Supernumerary Medical Officer was appointed D. M. O. of the Gayle district with right to receive Coolie fees, as from November 26th 1912.

Dr. A. E. Myers was transferred on application from the Falmouth district to the St. Ann's Bay district as from 17th February 1913.

Dr. G. P. Campbell was transferred on application from the Grange Hill district to the Falmouth district as from 17th February 1913.

Dr. W. E. H. Beard, Supernumerary Medical Officer was appointed D. M. O. of the Grange Hill district as from 17th February 1913.

Dr. M. T. Cassidy was transferred on application from the Lunatic Asylum to the Moneague district as from 17th June 1912, and again from the Moneague district to the Vere district on the death of the late Dr. Tillman as from 20th February 1913.

Dr. R. G. Sherlock, Supernumerary Medical Officer was appointed D. M. O. of the Lambs River district as from 1st April 1912.

Dr. T. A. Dryden was appointed Supernumerary Medical Officer as from 26th November 1912, having acted in the same capacity from 14th May 1912.

RESIGNATION.

Dr. E. V. Halliday resigned his appointment as District Medical Officer of the Christiana district as from 1st October 1912.

DEATHS IN THE DEPARTMENT.

I much regret to have to record the deaths of Dr. P. O. Malabre, late D. M. O. of the Richmond district and Dr. H. G. Tillman, late D. M. O. of the Vere district.

These Medical Officers were men of experience and well known and liked in thier districts and the Department is unfortunate in having lost two such able officers.

The following Medical Officers were granted leave during the year:—

Name.	Period of absence.	Acting Officer.
Dr. R. S. Turton	6 months and 3 days	Dr. Lewis Crooks
Dr. C. A. Moseley	6 months and 12 days	Dr. J. G. Moseley
Dr. M. M. Meikle	6 months	Dr. C. S. Gideon and Dr. W. E. H. Beard
Dr. Geo. Hargreaves	1 month	Dr. W. E. Wilson
Dr. C. S. Gideon	5 weeks	Dr. H. Joslen
Dr. J. E. Ker	4 months	Dr. Lawson Gifford
Dr. C. A. H. Thomson	3 weeks	Medical Officers at Hospital
Dr. G. H. K. Ross	3 weeks	Medical Officers at Hospital
Dr. Malabre	1 week	Dr. E. G. O. Nixon
Dr. Eyre Smith	21 days	Dr. W. G. Farquharson and Dr. F. A. G. Purchas
Dr. J. H. Peck	11 days	Dr. A. G. Curphey
Dr. Frank Cooke	11 days	Dr. A. J. Salmon
Dr. F. A. Ritchie	3 weeks	Dr. P. M. Lyon
Dr. C. W. M. Castle	12 days	Dr. G. H. K. Ross
Dr. H. H. Scott	14 days	Dr. C. A. H. Thomson.

Dr. R. S. Turton who during his vacation in the Financial year 1908-9 worked for and took the Diploma of Public Health at Cambridge University during his last vacation went through a course of study at the Tropical School of medicine in London and passed the D. T. M. examination qualification of that school.

Dr. C. A. Moseley during his vacation in London took out a course of Bacteriology and Chemistry for the Diploma of Public Health. Owing to the near approach of Plague in this Island he asked leave to be given the opportunity of studying the methods adopted by the Local Government Board in dealing with cases of Plague and Plague infected Rats.

I attach a copy of a portion of his letter on the matter.

Port Antonio, 25th April, 1913.

Sir,

While on leave in London in July last, it occurred to me that my time might be usefully employed, in obtaining as extensive a knowledge of Plague as possible; this seemed to me important in view of the alarming reports received from Jamaica regarding the near approach of the disease to the Island. It was then prevalent in Porto Rico and a case or two had occurred at Havana. You were good enough to interest yourself in the matter and as the result of a visit to the Colonial Office, which I paid in your company, I was put in touch with the Medical Officers of the Local Government Board who had the supervision of such matters.

It so happened about this time a fatal case of human plague had occurred at Tynemouth, animal inoculation had been employed to confirm the diagnosis, the inoculated animals were subsequently sent to the Local Government Board's Laboratory at Carlisle Place, where on the invitation of Dr. Griffiths I went to see them.

The history of the Tynemouth case is interesting, and no medical officer who has to do with quarantine work will go wrong to keep it constantly before him, particularly if there is the slightest possibility that he may be dealing with a case of plague.

A ship sailed from a South American port, where a few cases of plague had occurred, bound for Cuxhaven. On the eve of sailing a pet rabbit was brought on board, after being at sea for some time the rabbit died. Shortly before reaching Cuxhaven one of the crew became ill; his case was pronounced by the Port Health authority at Cuxhaven to be enteric fever, the ship was granted pratique and the man landed. The ship then proceeded to Hamburg, where another member of the crew reported sick, his case also was diagnosed as enteric fever. The ship then sailed for Tynemouth, where on arrival a third man reported sick, the medical officer also diagnosed this case as one of enteric fever, but thinking the circumstances suspicious had the ship detained in quarantine, on the following day the man died. A post mortem examination was made and as the findings of this pointed to plague as the cause of death, bacteriological examinations were made and animal inoculations carried out which amply confirmed the diagnosis. In addition it was found that the authorities at Hamburg and Cuxhaven agreed that the other two cases, which had in the meantime ended fatally, were both cases of plague.

The characteristic post mortem appearances were marked in the case of the animals I saw at Carlisle place. Oedema of the cellular tissue, glandular enlargement, roughened condition of the spleen with necrotic patches here and there. Smears from any of the tissues showed a bacillus with the well known polar staining.

Dr. Herbert Williams, the Health Officer for the port of London, to whom I had a letter of introduction, very courteously gave me all the information he could, dealing with the subject of quarantine generally as carried out in connection with ships entering the Thames, and of plague infected ships particularly.

* * * * * * * *

Later in the year I decided to do the Bacteriology and Chemistry and in fact as much of the work as I could in the three months at my disposal, for the Public Health Diploma, this I did at St. Bartholomew's Hospital.

Here again, through the kindness of Dr. F. W. Andrews, Pathologist to the Hospital, I had ample opportunity to observe the post mortem appearances in rodent plague, and to follow up the bacteriological findings. For a matter of two weeks or more some six or eight rats were sent to Dr. Andrews daily for examination, with few exceptions they had all died as the result of plague. Hearing that I was interested in the matter he very kindly asked me to be present while he was doing the work in connection with them.

Dr. Andrews laid stress on the fact, that rats were subject to a considerable number of diseases, and that one pseudo-tuberculosis—so closely resembled plague that if dependence were placed on the post mortem appearances and the polar staining of bacilli found in smears prepared from the glands and organs, one was very likely to go wrong, and that animal inoculation was the only sure method of arriving at a correct diagnosis.

I may add in conclusion that from all that I saw and heard, the importation into this Island of a case or two of human plague, of the bubonic or septicæmic type, need not be taken too seriously, although it is something by no means to be desired and that all our efforts should be directed to prevent the importation of plague infected rats, and that most strenuous and unceasing efforts should be made to reduce the rodent population as much as possible.

My thanks are due to you and to the other members of the profession mentioned in the report, for the interest taken in my enquiries, and for the courtesies extended to me.

I have, etc.,

C. A. Moseley, D. M. O.

Return of Expenditure for the Island Medical Department for the year ending 31st March, 1913.

——	Personal Emoluments.	Other Charges.	Gross Expenditure.	Amount of Dues Collected.	Actual Expenditure after deducting Amount passed to credit of Hospital.	Amounts of Grants Estimated.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Head Office	2,507 10 8	6,697 9 3	9,204 19 11	1,667 14 6	7,537 5 5	8,997 14 11
District Medical Officers	5,978 19 4	..	5,978 19 4	..	5,978 19 4	6,150 0 0
Supernumerary Medical Officers	324 1 6	..	324 1 6	..	324 1 6	400 0 0
Public General Hospitals—						
Morant Bay	199 10 0	358 7 4	557 17 4	15 13 3	542 4 1	569 8 0
Hordley	242 4 8	475 0 5	716 5 1	13 6 8	702 18 5	528 0 0
Port Antonio	497 14 0	2,332 17 6	2,830 11 6	95 3 4	2,735 8 2	2,377 8 0
Buff Bay	319 5 1	928 9 5	1,247 14 6	11 19 4	1,235 15 2	1,886 16 0
Annotto Bay	419 2 5	1,222 10 10	1,641 13 3	30 2 0	1,611 11 3	2,271 18 0
Port Maria	334 5 6	821 17 0	1,156 2 6	25 10 6	1,130 12 0	1,531 12 0
St. Ann's Bay	221 13 2	309 12 2	531 5 4	14 6 3	516 19 1	544 15 0
Cave Valley	68 12 0	108 1 0	176 13 7	15 16 10	160 16 2	194 8 0
Falmouth	223 8 4	270 19 9	494 8 1	48 15 2	445 12 11	470 2 0
Ulster Spring	..	24 18 3	24 18 3	..	24 18 3	157 12 0
Montego Bay	223 8 0	492 11 2	715 19 2	26 19 0	689 0 2	839 10 0
Lucea	209 14 0	213 2 6	422 16 6	5 19 5	416 17 1	445 3 0
Sav-la-Mar	323 18 8	530 3 5	854 2 1	21 8 2	832 13 11	1,289 18 0
Black River	206 1 6	283 9 6	489 11 6	25 0 6	464 10 6	490 10 6
Mandeville	230 17 0	475 11 0	706 8 0	8 2 4	698 5 8	722 8 0
Chapelton	248 2 0	580 12 11	828 14 11	11 10 11	817 4 0	725 10 0
Lionel Town	339 16 11	788 1 2	1,127 18 1	11 5 0	1,116 13 1	1,429 16 0
Spanish Town	436 6 4	1,620 9 9	2,056 16 1	51 4 0	2,005 12 1	1,709 8 0
Linstead	207 2 4	379 1 3	586 3 7	8 7 0	577 16 7	623 16 0
Yaws Fees	2,998 14 9	..	2,998 14 9	..	2,998 14 9	2,155 0 0
Vomiting Sickness	..	99 15 5	99 15 5	..	99 15 5	100 0 0
Investigation Pellagra	..	..	..	..	..	100 0 0
Drugs and Poisons Law	17 1 0	..	17 1 0	..	17 1 0	17 0 0
Medical Attendance on Immigrants	610 6 11	..	610 6 11	..	610 6 11	640 0 0
Public Hospital	4,542 15 8	5,997 8 10	10,540 4 6	702 16 1	9,837 8 5	10,235 6 6
Lunatic Asylum	6,530 10 11	11,883 13 2	18,414 4 1	9,321 15 8	9,092 8 5	19,034 2 7
Lepers' Home	904 5 9	1,680 10 3	2,584 16 0	..	2,584 16 0	2,569 0 0
Jubilee Hospital	561 8 7	869 4 2	1,450 12 9	366 8 6	1,064 4 3	1,400 5 0
Vaccination Fees	1,932 5 1	..	1,932 5 1	..	1,932 5 1	2,100 0 0
Medical Officer, General Penitentiary	250 0 0	..	250 0 0	..	250 0 0	250 0 0
Health Officer, Port Royal	486 6 8	..	486 6 8	..	486 6 8	450 0 0
Quarantine	226 0 0	1,469 16 2	1,965 16 2	..	1,695 16 2	1,169 12 0
Central Board of Health	175 19 6	269 4 1	445 3 7	..	445 3 7	25 0 0
Medical Council	31 10 0	..	31 10 0	..	31 10 0	20 0 0
Treatment of Ankylostomia	..	167 9 2	167 9 2	..	167 9 2	..
Delegate to Conference at Trinidad	..	50 0 0	50 0 0	..	50 0 0	..
	33,027 18 3	41,400 6 10	74,428 5 1	12,499 4 5	61,929 0 8	74,620 19 6

Value of Drugs, etc., issued to the various Institutions, etc., from the Island Medical Stores, during the financial year. 1912-1913.

Value of drugs and sundries issued to Public General Hospitals, Lepers' Home, and Medical districts	£2,173 2 4
Value of stimulants issued to Public General Hospitals and Lepers' Home	47 13 3
Value of drugs, etc., issued to Kingston Hospital	881 4 1
do drugs, etc., issued to Jubilee Hospital	50 13 1
do stimulants issued to Jubliee Hospital	1 3 6
do drugs, etc., issued to Lunatic Asylum	297 6 3
do stimulants, etc., issued to Lunatic Asylum	29 8 6
do drugs, etc., issued to Prison and Reformatories	144 11 4
do stimulants issued to Prison and Reformatories	12 3 8
do drugs issued to Department of Agriculture	18 14 2
do drugs issued to Quarantine Station and Visiting Officers	13 2 9
do drugs issued to Schools Department	13 4 3
do drugs, etc., issued to Parochial Boards	491 13 1
do drugs, etc., issued to Constabulary Department	48 7 2
do quinine in packets supplied to Post Offices, etc.	250 0 0
do drugs and sundries sold	83 6 9
do lymph issued to District Medical Officers	301 7 4
do quinine issued to Malaria Commission	106 17 4
do quinine issued to estates	144 10 0
do instruments supplied to Public General Hospitals	204 13 4
	£5,313 1 10

During the year there were two general examinations under Law 34 of 1894, at which 30 candidates presented themselves, including three from the Kingston Public Hospital.

In all 20 candidates satisfied the Examiners, including the three from the Kingston Hospital, and were granted Licenses.

Return showing the number of cases prosecuted, at the instance of the Constabulary, for violation of Law 34 of 1894—The Drugs and Poisons Law—during the year ended 31st March, 1913.

Parish.	Title of Case.	Nature of Offence.	Date of Trial.	Result.	Remarks.
St. Mary ..	Rex vs. R. A. Silvera	Breach of Section 18	31.12.12	Fined 5/ or 5 days H. L.	Fine paid.
St. Catherine	Rex vs. Saml. Gray	Selling poison without a license	11.2.12	Fined 5/6 and costs 14/6.	do

QUARANTINE.

The year had scarcely commenced, when, two fatal cases of plague were announced as having occurred in Trinidad, and that country was declared a proclaimed place for plague by the Governor in Privy Council on the 16th April, 1912.

The outbreak, however, was well controlled and in all there were only 13 cases and 7 deaths.

The restrictions against Trinidad were gradually relaxed and early in November the proclamation was withdrawn and it was declared free.

In the month of June plague in epidemic form appeared in Porto Rico, and it was proclaimed an infected place on June 25th. The prompt and through methods adopted by the Porto Rican Government for stamping out the disease were very successful, and it was soon under control. The last reported case occurred at San Juan on September 12, 1912. The last infected rat reported was found at Caguas on December 19th, 1912.

The restrictions against Porto Rico were gradually relaxed and with the exception of harbour regulations here it is now practically free.

Plague broke out at Havana, Cuba, on July 4th and this Board was informed on July 7th. The disease was promptly dealt with and only three cases were reported with two deaths. Curiously enough a vessel to be used as a coasting vessel for this Island arrived from Havana on July 1st and as soon as it was known that plague had appeared at the port she was placed in quarantine and fumigated. She had, however, made one trip around the island. After fumigation, 67 dead rats were found. These were taken to the Bacteriological Laboratory for examination and two were found by the Bacteriologist to be infected with plague. The prompt measures taken by the Quarantine Board undoubtedly saved the island from infection as the infected rats would on all probability have eventually got ashore and spread the disease, the vessel being employed on coastal service. The above shows the necessity for extreme care in dealing with vessels from infected ports. It must be borne in mind, however, that this ship had left Havana even before plague had been officially declared against it.

Cuba was declared an infected place on July 23. The restrictions were gradually removed until now with the exception of ratguards it is free.

A plague infected rat was found at New Orleans on July 27th and for a time precautions were taken so as to prevent the possible introduction of plague infected rats from that place. Happily no more plague infected rats have been reported and no case of plague in man has occurred.

On July 26th a case of non-imported plague at Liverpool was reported and precautions against that place were at once taken. No further case developed and the restrictions imposed were gradually withdrawn.

A consistent anti-rat campaign is said to take place in Liverpool.

During the period under review plague appeared in the Azores, Cape Verde Islands, Venezuela, the Argentine Republic and Brazil.

Restrictions were placed on arrivals from those places and are still in force, the Quarantine Board not having so far received satisfactory evidence that they are free from infection.

In the case of Brazil and the Argentine Republic it appears to be endemic. There is a certain amount of traffic between the Republic of Brazil and this Island by means of Barques and great care has had to be exercised in order to prevent the possibility of infection. Arrangements have been made for these vessels to make Port Royal their first port of call, where they may be examined and thoroughly fumigated. The danger of infection through an Outport being thus eliminated.

Two cases of plague occurred on September 2nd on board S. S. Bellailsa at Hamburg, which ship had come from the Argentine Republic (via Cape Verde Islands) from which she set sail on July 2, and a few days later another case was removed from the same vessel on her arrival on the river Tyne.

There would appear thus to have been an interval of about two months between the date of leaving the Argentine Republic and the date of the occurrence of the first case of human plague. Fortunately no cases of the disease developed ashore at either Hamburg or any town on the Tyne. The fact, however that an interval of two months more or less took place between the sailing from the Argentine and the arrival in Europe should be noted.

During the year Yellow Fever was present in both Martinique and Venezuela and one imported case was reported from Panama.

The necessary precautions against the introduction to Jamaica were at once taken.

10. Small-pox has been prevalent in several cities of the United States which are in constant communication with this Island, but the precautions taken have been sufficient to keep this Island from becoming infected.

During the year under review the residence of the Health Officer at Port Royal, the Quarantine Station, and the Kingston Public Hospital were connected by telephone cable. As the telephone keeps getting out of order it causes a lot of trouble.

The residence of the Secretary of the Quarantine Board was also connected to the Exchange by telephone and this has greatly facilitated the working of the Quarantine Department.

The small Clayton disinfector has been in constant use since last July. This machine works well and the results are all that could be desired where small ships are concerned. During the year six barques and eight steamers have been fumigated at Port Royal.

The Quarantine Station is in good order and sufficiently well equipped, but the lack of a permanent and sufficient fresh water supply is a fact to be noted as the rainfall at the station is at times very small.

During the year 43 persons were detained at the Quarantine Station.

A Clayton Disinfector capable of fumigating a ship of large dimensions was ordered by the Government and arrived in March. As soon as a suitable lighter is provided it will be possible to use it for disinfection purposes.

The Quarantine Board desires to express their thanks to the Surgeon General of the United Public Health and Marine Hospital Service for his kindness in supplying them with a weekly copy of the Public Health reports issued by his Department, which reports keep the Quarantine Board in touch with the incidence of Infective Disease practically all over the world except in regard to those States that do not fully report their cases of Infective disease.

VACCINATION.

Year.	Number.			Payments.			
	Successful.	Unsuccessful-	Did not return.	D.M.O.	Constables.	Registrars.	Totals.
1907–8 ..	22,916	524	392	£915 15 0	£263 14 9	£220 19 8	£1,372 19 5
1908–9 ..	21,662	705	562	970 14 0	254 8 8	226 0 1	1,451 2 9
1909–10 ..	22,786	653	461	1,054 8 0	279 5 8	257 1 1	1,590 14 9
1910–11 ..	23,106	617	559	993 5 0	259 1 3	246 17 4	1,499 2 7
1911–12 ..	19,784	2,933	663	757 7 0	215 10 5	251 17 5	1,224 14 10
1912–13 ..	26,103	393	343	649 14 8	1,034 3 6	248 6 11	1,932 5 1

The payments made are as follows:—

one shilling, for each successful case, to the D.M.O.
threepence, for every case brought out, to the District constable
twopence, to the Registrar, for every birth notified.

The above is the return for last and some previous years.

The children of the Island are protected against smallpox but very little revaccination takes place, consequently one may say that the Adult population are very poorly protected, if at all.

YAWS.

The following is a list of the cases treated and paid for some years past: The D.M.O.'s are given mileage and 2/ for each first case seen, and mileage and 1/ for each subsequent case. A large number of cases may be seen on one inspection.

Year.	Patients.	Cost.
1907–8	2,853	£384 18 0
1908–9	5,332	797 4 10
1909–10	4,555	723 1 9
1910–11	7,313	1,265 2 11
1911–12	8,152 1st visits	2,523 10 7
	4,702 2nd “	
	1,884 3rd “	
	73 4th “	
1912–13	8,285 1st “	2,998 14 9
	5,851 2nd “	
	4,533 3rd “	
	1,795 4th “	
	686 5th “	
	201 6th “	
	40 7th “	
	15 8th “	
	2 9th “	
	2 10th “	

The following are the return from each district respectively of cases paid for by this Department up to the end of the Financial year.

The following are the return from each district respectively of cases *paid for* by this Department up to the end of the financial year.

Parish.	District.	D. M. O.	Visits.									
			1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Kingston ...	Kingston ...	Dr. L. Gifford ...	...	...	...	...	...	...	...	...	...	...
St. Andrew ...	Stony Hill ...	" R. S. Turton ...	105	64	...	...	...	...	...	...	...	...
	Lower St. Andrew	" C. R. Edwards ...	..	..	...	...	...	...	...	...	...	...
	Gordon Town ...	" C. E. Sharp ...	202	192	175	...	...	...	...	...	...	...
St. Thomas ...	Morant Bay ...	" T. M. Bartlett ...	374	240	55	1	...	...	...	...	...	...
	Hordley ...	" F. R. Evans ...	167	87	7	...	...	...	...	...	...	...
	St. Davids ...	" A. T. Clark ...	627	505	325	...	...	...	...	...	...	...
	do ...	" C. E. Sharpe ..	38	47	17	...	...	...	...	...	...	...
Portland ...	Port Antonio ...	" C. A. Mosely ...	353	122	52	26	14	11	9	4	2	2
	Buff Bay ...	" H. J. George ...	548	144	31	...	...	...	...	...	...	...
St. Mary ...	Annotto Bay ...	" F. A. Ritchie ...	242	220	224	96	40	...	...	...	...	...
	Port Maria ...	" W. G. Farquharson	701	701	701	521	...	...	...	...	...	...
	Richmond ...	" P. O. Malabre ...	569	505	535	324	170	41	...	...	...	...
	do ...	" E. G. O. Nixon ...	254	...	...	...	...	...	...	...	...	...
	Gayle ...	" G. I. Lecesne ...	260	249	147	...	...	...	...	...	...	...
St. Ann ...	St. Ann's Bay ...	" H. Joslen ...	289	160	86	...	...	...	...	...	...	...
	Moneague ...	" M. T. Cassidy ...	...	...	...	...	...	...	...	...	...	...
	Cave Valley ...	" G. Hargreaves ...	97	51	14	...	...	...	...	...	...	...
	Dry Harbour ...	" W. E. Wilson ...	32	32	...	...	...	...	...	...	...	...
Trelawny ...	Ulster Spring ...	" E. V. Smith ...	141	78	87	6	...	...	...	...	...	...
	Duncans ...	" F. A. G. Purchas ...	110	115	114	60	49	6	...	...	...	..
	Falmouth ...	" A. E. Myers ...	78	74	50	64	23	18	...	...	...	...
St. James ...	Montego Bay ...	" G. W. Thomson ...	190	253	255	14	...	...	...	...	...	...
Hanover ...	Adelphi ...	" H. G. Johnston ...	168	120	174	176	158	...	...	...	...	...
	Lucea ...	" F. H. Cooke ...	547	503	471	305	150	82	14	7	...	...
Westmoreland ...	Sav.-la-Mar ...	" C. E. Harvey ...	57	26	...	...	...	...	...	...	...	...
	Little London ...	" F. A. Sinclair ...	65	54	104	...	...	...	...	...	...	...
	Lambs River ...	" R. G. Sherlock ...	375	...	...	...	...	...	...	...	...	...
	do ...	" E. H. B. Stafford ...	42	2	...	...	...	...	...	...	...	...
	Grange Hill ...	" G. P. Campbell ...	159	159	135	...	...	...	...	...	...	..
St. Elizabeth ...	Black River ...	" C. H. Farquharson ...	50	...	...	...	...	...	...	...	...	...
	Santa Cruz ...	" J. A. L. Calder ...	...	...	...	...	...	...	...	...	...	...
	Balaclava ...	" W. O. Lofthouse ...	156	163	85	13	...	...	...	...	...	...
Manchester ...	Mandeville ...	" Geo. Cooke ...	21	10	...	...	...	...	...	..	...	...
	Christiana ...	" W. G. Farquharson	99	63	63	...	...	...	...	...	...	...
	Newport ...	" M. M. Meikle ...	24	40	20	...	...	...	...	...	...	...
	do ...	" W. E. H. Beard ...	56	55	17	...	...	...	...	...	...	...
Clarendon ...	Chapelton ...	" A. W. Thomson ...	...	...	...	...	...	...	...	...	..	...
	Alley ...	" H. G. Tillman ...	...	...	...	...	...	...	...	...	...	...
	Four Paths ...	" E. R. C. Earle ...	180	150	106	51	...	...	...	...	...	...
	Crofts Hill ...	" H. T. Strudwick ...	140	143	164	124	82	43	17	4	...	...
St. Catherine ...	Spanish Town ...	" J. H. Peck ...	53	31	34	...	...	...	...	...	...	...
	Linstead ...	" L. M. Clark ...	299	40	...	...	...	...	...	...	...	..
	Old Harbour ...	" F. O. Simpson ...	417	453	295	14	...	...	...	...	...	...
			8,285	5,851	4,533	1,795	686	201	40	15	2	2

The following is a list of cases treated during the year for all of which the financial charges have not yet come in—this accounts for the difference in number of cases in this list and the above one.

District.	Medical Officer.	No. of individuals treated for Yaws.	No. of persons apparently cured.	Percentage of persons cured to cases treated.
Morant Bay	Dr. Bartlett ..	Cannot be	supplied.	
Hordley ..	" Evans ..	226	149	65
St. Davids ..	" Clarke ..	738	343	46.3
Port Antonio ..	" Moseley ..	834	667	80
Buff Bay ..	" George ..	548	108	19.7
Annotto Bay ..	" Ritchie ..	236	29	12.29
do	" Joslen ..	174	Cannot be	supplied
Port Maria ..	" Farquharson ..	701	..	—
Richmond ..	" Malabre			
	" Nixon ..	823	—	—
do	" Ritchie ..	360	1	28
Gayle	" Gideon ..	391	32	
St. Ann's Bay	" Myers ..	285	—	No records
Moneague ..	" Curphey ..	—	—	—
Cave Valley ..	" Hargreaves ..	82	36	43
Ulster Spring ..	" Smith ..	143	29	20.28
Duncans ..	" Purchas ..	160	145	90.63
Falmouth ..	" Campbell ..	129	45	35
Montego Bay ..	" Thomson ..	1,114	457	41
Adelphi ..	" Johnston ..	299	119	39.6
Lucea ..	" Cooke ..	No record	161	Not ascertainable

List of cases treated during the year, *continued.*

District.	Medical Officer.	No. of individuals treated for Yaws.	No. of persons apparently cured.	Percentage of persons cured to cases treated.
Sav.-la-Mar ..	Dr. Harvey ..	107	Cannot be given	
Little London ..	" Sinclair ..	118	59	50
Lamb's River	" Sherlock ..	610	36	16
Grange Hill ..	" Beard ..	No record	—	—
Black River ..	" Farquharson ..	104	66	67
Santa Cruz ..	" Calder ..	10	10	100
Balaclava ..	" Lofthouse ..	438	260	59.36
Mandeville ..	" Cooke ..	38	34	89.4
Mile Gully ..	" Farquharson ..	160	80	50
Newport ..	" Meikle ..	Cannot be supplied.		
Chapelton ..	" Thomson ..	167	140	80
Alley ..	" Cassidy ..	—	—	—
Four Paths ..	" Earle ..	204	120	70
Crofts Hill ..	" Strudwick ..	243	100	41.15
Spanish Town ..	" Peck ..	53	21	42.85
Linstead ..	" Clark ..	384	196	51.05
Old Harbour ..	" Simpson ..	414	401	96.[illegible]
Kingston ..	" Gifford ..	—	—	—
Port Royal ..	" N ish ..	—	—	—
Stony Hill ..	" Turton ..	268	134	50
Gordon Town ..	" Sharp ..	265	133	50
Lower St. Andrew	" Edwards ..	40	40	100
		10,866	4,161	38.29

The Prosecutions and pending prosecutions under the Yaws Law are as follows:—

Crofts Hill	7 cases pending under Section 6
Spanish Town	6 cases ordered under Sect. 6
Ulster Spring	14 prosecutions under Sect. 6
Buff Bay	8 Prosecutions
Richmond	4 "
Cave Valley	1 under Sect. 5
Adelphi	15 prosecutions
Lucea	30 (about)
Balaclava	8 pending under Sect. 5.
May Pen	2

YAWS CASES TREATED BY SALVARSAN.

The following is a return sent in from the Medical Officers of those Hospitals into which patients have been taken and treated by Salvarsan:—

Hospitals.	Cases.	Symptoms cured.	Average Number of days required for cure of symptoms.	Symptoms cured by one dose.	Requiring 2 doses.	Required more than 2 doses.
Morant Bay ..	9	9	14	9	—	—
Hordley ..	43	43	12	43	—	—
Port Antonio ..	82	82	16	76	6	—
Buff Bay ..	—	—	—	—	—	—
Annotto Bay ..	—	—	—	—	—	—
Port Maria ..	—	—	—	—	—	—
St Ann's Bay ..	—	—	—	—	—	—
Cave Valley ..	—	—	—	—	—	—
Falmouth ..	18	17	28	17	—	—
Montego Bay ..	7	7	14	1	6	1
Lucea ..	3	3	..	3	..	..
Sav.-la-Mar ..	1	1	26	1	..	..
Black River ..	..	..	—	—	—	—
Mandeville ..	1	1	14	1	—	—
Chapelton ..	—	—	—	—	—	—
Lionel Town ..	—	—	—	—	—	—
Spanish Town ..	3	3	14	3	—	—
Linstead ..	182	160	30	158	2	—
	349	326	—	312	14	1

Linstead Hospital is the only one that has regular isolation wards for Yaws cases.

Dr. Evans, District Medical Officer Hordley, states that Salvarsan has had a wonderful effect, in his hands, on crab yaws.

The following are some remarks by Dr. Moseley on the subject:—

Vigorous efforts were made to deal with Yaws in addition to treating cases in the Hospital with Salvarsan (116 cases) visits were paid to places where the disease was prevalent, such as Islington, Windsor Forest, etc., etc. As regards the treatment of the cases with Salvarson to two patients I gave the drug intravenously with the most happy result, inasmuch that they were able to leave the hospital forty-eight hours after getting the dose, and the pain and other inconveniences, attendant on the administration of the drug in the usual way were avoided, as however the apparatus used was an extemporised affair, and was not altogether free from danger, I thought it best to postpone further dosage in this way, until a proper apparatus has been furnished.

In the Circular calling for this report a question is asked under the heading of Yaws "whether any of the persons seen for the first time appeared to be suffering from the disease for any length of time." The majority are secondary or tertiary cases, I would instance the case of a boy of 14 from Coopers Hill District who was brought to the Hospital with a typical Yaws ulcer of the sole of the foot who had suffered from the disease for six years. He had 3 grms of Salvarsan and in ten days he was walking about with the ulcer quite healed.

The following are some remarks by Dr. Evans on the subject:—

Yaws still exists in this district but does not appear to be as prevalent as it was.

In several cases District constables report to me that the people will not use the medicines continuously and on two or three occasions the dispenser at the hospital has told me of people who have gone there for medicines and stated that they had only come for it because the Law compelled them to do so but they had no intention to take it. So with the District constables they state that the people only get medicines in order to avoid prosecution.

A good deal of this is due to the fact that it takes, in some cases, a long time to cure Yaws by internal medication and so the people cease to believe in the efficacy of drugs. In contrast to this attitude is the eagerness they display in getting their children into hospital after seeing the rapid cures brought about by Salversan. It is a great pity that all cases cannot be treated with this drug as the results obtained are simply marvellous. Having but a small room in which to isolate them I was only able to treat 43 cases in hospital. All were cured with one dose of Salvarsan and in order to test its efficacy in several cases no local application was used yet in from three to five days the ugly growths would begin to dry and gradually disappear.

The action of this drug is just as wonderful in what is known as crab yaws. It was very gratifying to see people, who could not walk on admission to hospital, on account of these ulcers on the soles of their feet, being able in a few days after receiving an injection to walk about just as if nothing had ever been wrong with them.

I quote a few of the most remarkable cases:—

(a) Male East Indian: Had Yaws nine months prior to admission and had been able to do very little work on account of a scaly ulceration of the soles of his feet, this being what is usually termed crab yaws, was given one injection of Salvarsan and left hospital eight days after quite healed.

(b) Male child of about 7 years: Face, arms and legs simply covered with yaws eruptions. Ten days after receiving an injection all eruption had disappeared and the skin was perfectly normal.

(c) Male 18 years: For over a year unable to walk properly on account of Crab yaws. Received one injection and left hospital 20 days after, cured. In one of these cases was a local application made.

In view of the results obtained in these 43 cases I am of opinion that given proper isolation wards at each hospital yaws could be properly eradicated in each district in about 6 months and the average stay in hospital being about 20 days, it would be far cheaper than the present system.

The following new works were carried out at the various Public General Hospitals during the year 1912–13.

MORANT BAY HOSPITAL.

1. Wire screening of the wards.
2. New latrine erected in male ward—screened.
3 New concrete guttering laid down under the eaves of the building.

HORDLEY HOSPITAL.

1. Enclosure of the underbuilding of the male ward to form a second ward and painting of the same.
2. Installation of a water service by means of a tank erected on the hillside which supplies the hospital by pipes and which is filled from a neighbouring spring by a pump worked by a donkey.
3. Installation of 3 sinks and 2 baths.
4. Erection of an additional latrine for the upper male ward for the use of creoles, also latrines in the lower male and small female wards.
5. Wire screening of the small female ward with the installation of double doors to the screened wards.
6. Wire screening of a portion of the Matron's Quarters.

PORT ANTONIO.

1. Erection of a building intended for two latrines.
2. Erection of a new kitchen range and partial hot water system.

BUFF BAY.

1. Extension of the old male ward 50 feet with addition of a latrine and bathroom.
2. Partial construction of 2 new male wards to hold 40 patients each 106 feet long with bathrooms and latrines attached.

3. Erection of rooms for 3 nurses.
4. Partial erection of an Operating Theatre.
5. Erection of new outbuildings including kitchen and storerooms
6. Acquisition of the old Buff Bay Almshouse which has been turned into two wards for females and Matron's quarters.

Annotto Bay.

1. Reflooring of a ward.
2. Installing of windows in underbuilding ward.
3. Laying down of a large concrete basin near the kitchen instead of the Catch pit which existed and of a concrete gutter to the sea shore behind the outbuildings.
4. Wire screening of the latrines.

Port Maria.

New hospital under construction.

Falmouth.

(a) Flooring of the bathrooms with zinc.
(b) Half window made in the Dispenser's wall for delivery of Outpatient's medicines.
(c) Wire screening of the provision store.
(d) Installation of enamelled iron baths attached to the male and female wards.
(e) Three small wards opened into one large one by the removal of two partitions on the east side of the hospital.
(f) Hospital painted throughout.

Montego Bay.

Erection of a tank to hold 400 gallons of water.
Erection of an Operating room was commenced.
A partition dividing two female wards has been removed thus throwing two wards into one.

Lucea.

Replacing of roof that was blown off in the hurricane.
Enclosure of underbuilding so as to form a ward if necessary.
Removal of staircase in order to make a bathroom and lavatory attached to the male ward.
Removal of a room in the female ward and erection of a bathroom.
Female ward increased in size by the removal of a wooden partition and better ventilation made by the removal of a neighbouring passage thus giving the ward two more windows.
Erection of a covered way from enclosed underbuilding to the kitchen.
Re-erection of that portion of the kitchen destroyed by the hurricane.
Erection of troughs (concrete) in the wash house.
Boarding in of the Lean to pantry next the kitchen.

Sav.-la-Mar.

Entire rebuilding after the hurricane of one male ward, the female ward, the mortuary and three latrines.

A new wash house with concrete troughs has been erected.

The destroyed Dispenser's and Matron's quarters are being rebuilt, as also the Infective Diseases Ward and dirty linen room.

All the above were demolished by the hurricane.

Black River Hospital.

(a) Installation of a concrete sink in the kitchen and the laying down of a concrete pavement outside, extending as far as the wards.
(b) Bathroom and mortuary drains extended to the sea.
(c) Latrines over the sea removed further away from land to prevent a nuisance,
(d) Erection of linen presses.

Mandeville Hospital.

Erection of Drying Shed.

Chapelton Hospital.

(a) Erection of nurses quarters.
(b) Erection of covered way.
(c) Erection of a new entrance gate.

Spanish Town Hospital.

(a) Erection of Laundry at a newly acquired site.
(b) Erection of a Laboratory and Assistant Dispensers room on the newly acquired site.
(c) Extension of the male coolie ward.
(d) Storm water drains opened up.

Leper Asylum.

Wire gauze screening of the Infirmary, Dispenser's and Nurses quarters.
Provision of a New Cooking Range.
Beds and cots were supplied to the following institutions during the year.—

Institution.	Spring Bedsteads	Cots.
Linstead	—	20
Chapelton	6	10
Buff Bay	—	111
Port Antonio	—	30
Montego Bay	8	6
Spanish Town	6	20
Hordley	—	30
Port Antonio	12	—
St. Ann's Bay	5	—
Ulster Spring	9	—

12 of the above beds were provided with self lifters and 12 were fracture beds.

OUTPATIENT DEPARTMENTS.—[Attached to Hospitals.]

In the year 1911-12 an innovation was made by the Institution of Outpatient Departments at the various Public General Hospitals with a view to the provision of Medical advice and treatment to persons who are too poor to pay fees and yet who are not paupers.

The Returns of the various hospitals for the year under review are as follows:—

Hospitals.	Number seen.	Hospitals.	Number seen.
Morant Bay	740	Montego Bay	657
Hordley	313	Lucea	888
Port Antonio	764	Sav.-la-Mar	667
Buff Bay	266	Black River	1,131
Annotto Bay	722	Mandeville	412
Port Maria	1,764	Mandeville	412
St. Ann's Bay	534	Chapelton	495
Cave Valley	25	Lionel Town	307
Falmouth	64	Spanish Town	1,316
		Linstead	122
			11,599

As this is the first whole year that this branch of the Department has been established no comparison with former years can be made. In one or two cases I note that the medical officers have included by mistake the casual paupers seen by them in the number of Outpatients treated, having attended them at the hospital.

This Branch of the service should increase as years go on and it should greatly assist in giving facilities for the treatment of Hookworm disease which is now so prevalent in the Island, and for the treatment of yaws.

However opportunities are placed before the people which are not always taken advantage of, in other words one can lead a horse to the water but one cannot make him drink.

OUTPATIENTS.—[Districts.]

A large number of patients have been seen as Outpatients in the various districts, the number so seen during the last three years is as follows:—

	1910–11.	1911–12.	1912–13.
Constables	2,414	2,932	2,838
Prisoners	2,902	2,913	3,780
Paupers	23,003	9,517	11,914
Immigrants	11,671	19,351	16,027
Par. Midwifery cases	87	114	77
Casual Paupers	—	9,398	10,529
Coolie Midwifery cases	—	23	21
Total	40,077	44,248	45,186

Return showing the number of patients who were treated under the Ticket system for affording Medical aid at moderate rates to poor persons not on the pauper roll and yet able to pay a fee.

Parish.		1s.	2s.	3s.
Kingston	..	664	272	—
St. Andrew	..	—	27	—
St. Thomas	..	—	12	2
Portland	..	—	25	3
St. Mary	..	—	69	1
St. Ann	..	—	2	—
Trelawny	..	—	—	—
St. James	..	—	21	—
Hanover	..	9	21	—
Westmoreland	..	9	410	—
St. Elizabeth	..	—	15	—
Manchester	..	—	15	—
Clarendon	..	—	8	—
St. Catherine	..	—	12	—
		682	909	6

as against 686, 658 and 127 during the year 1911-12.

Return showing the large and gradual increase that has taken place in the number of admissions to the country hospitals during the last nine years.

Hospital.	1904–5	1905–6	1906–7	1907–8	1908–9	1909–10	1910–11	1911–12	1912–13
Morant Bay	393	469	510	534	660	531	545	782	730
Hordley	387	587	707	555	629	621	537	918	1,294
Port Antonio	1,257	1,673	1,788	3,359	3,674	3,200	4,288	5,680	6,110
Buff Bay	2,274	734	654	937	935	755	1,216	1,341	1,961
Annotto Bay ..	1,147	3,739	4,313	4,641	5,338	5,005	6,138	5,558	5,169
Port Maria	1,360	1,610	1,388	1,380	1,584	1,837	2,502	2,627	2,532
St. Ann's Bay	191	194	252	285	264	219	235	274	414
Cave Valley	66	76	87	83	93	91	81	98	101
Falmouth	313	238	262	209	252	330	308	276	315
Montego Bay	268	302	266	228	228	180	337	494	796
Lucea	290	276	224	244	241	237	296	295	284
Sav.-la-Mar	228	226	1,026	861	857	800	1,961	1,440	1,989
Black River	310	274	301	385	321	305	285	316	343
Mandeville ..	287	312	323	259	245	283	281	401	415
Chapelton	207	331	480	489	335	344	364	424	530
Lionel Town	906	1,533	3,532	2,062	1,852	2,070	1,700	2,547	2,497
Spanish Town	854	11,60	1,360	1,262	1,260	1,379	1,144	1,544	1,857
Linstead	150	..	..	..	..	..	121	195	4,494
	11,076	13,734	17,473	17,781	18,768	18,187	22,338	25,211	27,781

Return showing the various classes of patients admitted to the Public General Hospitals with numbers of each, also the amounts received from paying patients.

Hospital.	Constables	Paupers on Parochial Roll.	Casual Paupers.	Poor persons admitted without Charge.	Poor persons attended as outpatients in connection with the Hospital outpatient system	Indentured Coolie Labourers.	Prisoners.	Paying patients.	Maintenance dues. Received. £ s. d.	Maintenance dues. Dues. £ s. d.
Morant Bay ..	32	..	..	441	740	231	3	23	9 7 0	..
Hordley ..	20	..	..	275	313	993	..	6	2 18 6	..
Port Antonio ..	66	3	..	1,577	764	4,623	7	39	81 17 0	..
Buff Bay ..	20	7	..	652	266	1,278	3	12	4 7 6	1 12 9
Annotto Bay ..	30	..	..	456	..	4,677	2	4	8 15 4	..
Port Maria ..	48	5	..	601	1,764	1,959	1	2	13 3 6	..
St. Ann's Bay .	27	1	..	381	543	..	..	5	9 18 6	..
Cave Valley ..	4	11	11	48	25	..	1	31	14 4 6	..
Falmouth ..	21	..	..	282	64	..	3	9	6 13 6	..
Montego Bay ..	35	..	..	341	657	417	2	1	16 9 0	..
Lucea ..	8	2	..	282	888	..	..	5	3 15 0	..
Sav.-la-Mar ..	44	4	..	368	271	1,618	1	11	8 14 3	0 8 0
Black River ..	36	..	..	302	1,131	..	6	5	10 12 6	14 5 0
Mandeville ..	14	..	22	403	412	..	2	4	7 3 8	4 14 0
Chapelton ..	25	..	..	495	495	..	2	3	4 17 0	..
Lionel Town ..	28	..	..	764	307	1,748	..	2	4 10 0	
Spanish Town ..	86	..	898	..	1,316	870	..	3	48 18 8	0 15 6
Linstead ..	38	..	666	390	122	327	17	8	8 7 0	..
	582	33	1,597	8,058	10,078	18,741	50	173	264 12 5	21 15 3

The following Tables are of interest:—

TABLE No. I.

Hospital.	Mortality Rate.			Largest Daily No.			Smallest Daily No.			Daily Average.			Date of largest Daily Numbers of Patients.	Date of smallest Daily Number of Patients.
	Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.		
Morant Bay ..	1.73	4.6	3.56	4	35	39	3	21	24	4.85	27.38	32.23	18.9.12	21.12.12
Hordley ..	.08	4.89	2.04	48	17	65	10	23	33	23.69	23.06	46.78	20.11.12	13.7.12
Port Antonio ..	.45	3.1	1.14	206	86	292	36	68	104	104.57	72.29	176.86	23.7.12	17.3.13
Buff Bay ..	.8	4.6	2.14	107	42	149	8	31	39	39.3	31.1	70.4	..	28.4.12
Annotto Bay ..	.504	6.09	1.04	170	27	197	57	28	85	112.72	25.99	138.71	5.2.13	28.4.12
Port Maria ..	.7	5.2	1.5	96	32	128	19	21	40	57.07	28.3	87.37	5.6.12	13.10.12
St. Ann's Bay ..	..	5.05	5.05	..	35	35	..	16	16	..	25.67	25.67	12.2.13	2.4.12
Cave Valley ..	..	1	1	..	9	9	..	3	3	..	5.97	5.97	3.4.12	11.7.12
Falmouth ..	..	5.07	5.07	..	34	34	..	10	10	..	22.8	22.8	20.11.12	30.6.12
Montego Bay ..	.49	7.6	3.77	28	35	63	1	16	17	11	26	37	17.3.13	Nov.
Lucea ..	..	7.3	7.3	1	21	22	1	10	11	.2	17.4	17.6	29.1.13	3.3.13
Sav.-la-Mar ..	.185	6.07	1.412	99	27	126	4	23	27	36.8	27.31	64.11	26.8.12	19.11.12
Black River ..	..	7	7	..	33	33	..	16	16	..	25	25	27.6.12	20.1.13
Mandeville ..	..	7	7	..	37	37	..	24	24	..	32	32	9.12.12	24.11.12
Chapelton ..	..	9.9	9.9	..	50	50	..	28	28	..	39.13	39.13	6.7.12	3.6.12
Lionel Town ..	.76	3.14	1.34	82	46	128	18	20	38	44.61	39.33	83.94	26.11.12	7.4.12
Spanish Town ..	2.5	9.4	6.1	109	96	205	63	49	112	75.53	84.58	160.11	6.1.13	23.4.12
Linstead ..	..	5.58	5.58	..	55	55	3	13	16	2.94	33.83	36.77	28.3.13	30.4.12

TABLE No. II.

Hospital.		Remaining in Hospital 1.4.12			Admissions.			Discharged.			Died.			Remaining in Hospital 31.3.13.		
		Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.	Coolies.	Creoles.	Total.
Morant Bay	..	4	24	28	246	484	730	251	473	724	4	23	27	4	24	28
Hordley	..	12	26	38	993	301	1,294	902	3 67	1,267	8	16	24	28	23	51
Port Antonio	..	64	68	132	4,533	1,577	6,110	4,532	1,453	5,985	21	51	72	70	73	143
Buff Bay	..	11	25	36	1,167	694	1,961	1,196	670	1,866	10	32	42	82	49	131
Annotto Bay	..	81	17	98	4,677	492	5,169	4,618	447	5,065	24	31	55	116	31	147
Port Maria	..	56	28	84	2,064	468	2,532	2,061	442	2,503	15	26	41	44	28	72
St. Ann's Bay	..	..	21	21	..	414	414	..	387	387	..	22	22	..	26	26
Cave Valley	..	..	5	5	..	101	101	..	99	99	..	1	1	..	7	7
Falmouth	..	..	23	23	..	315	315	..	274	274	..	17	17	..	24	24
Montego Bay	..	1	25	26	417	379	796	407	324	731	2	29	31	8	26	34
Lucea	..	..	16	16	3	281	284	2	258	260	..	22	22	1	17	18
Sav.-la-Mar	..	19	38	57	1,599	390	1,989	1,531	395	1,926	3	26	29	85	35	120
Black River	..	..	27	27	..	343	343	..	348	348	..	26	26	..	24	24
Mandeville	..	..	30	30	..	415	415	..	383	383	..	31	31	..	31	31
Chapelton	..	..	31	31	..	530	530	..	440	440	..	52	52	..	38	38
Lionel Town	..	27	18	45	1,815	682	2,497	1,784	639	2,423	14	22	36	44	39	83
Spanish Town	..	62	89	151	870	987	1,857	852	927	1,779	22	93	115	58	56	114
Linstead	..	8	14	22	46	398	444	45	349	394	..	23	23	1	49	50
		345	525	870	18,530	9,251	27,781	186,181	8,675	26,856	123	543	666	541	600	1,141

Return showing the daily total cost per patient, and the daily cost per patient for maintenance only at the several Public General Hospitals.

	Daily total cost per patient.		Daily cost per patient for maintenance only.
	s.	d.	d.
Morant Bay ..	0	11	5
Hordley ..	0	10	5¼
Port Antonio ..	0	10¼	6¼
Buff Bay ..	0	11¼	5¼
Annotto Bay ..	0	8¾	4½
Port Maria ..	0	9	5
St. Ann's Bay ..	1	1¼	5¼
Cave Valley ..	1	7¼	5½
Falmouth ..	1	2¾	5¾
Montego Bay ..	1	0¾	6
Lucea ..	1	3¼	5
Sav.-la-Mar ..	0	8¾	4
Black River ..	1	1	5
Mandeville ..	1	2½	6½
Chapelton ..	1	2	6¾
Lionel Town ..	0	8¾	4½
Spanish Town ..	0	8½	4¾
Linstead ..	0	10¼	5¼
	17	9¼	7 11½

Hookworm Infection.

Infection by Hookworm has come more than ever into prominence owing to more frequent and careful examinations having been made during the year.

Dr. Scott the Island Bacteriologist has had 885 specimens of fæces sent up to him from the various hospitals and Medical Officers. The results of his examinations are noted below.

List of places from which Fæces have been sent for examination as to the presence of Ankylostoma ova.

Place.	No. Sent.	No. Positive.	Percentage.
Kingston Public Hospital ..	85	60	70.5
Spanish Town Hospital ..	89	75	84.2
Sav.-la-Mar Hospital ..	83	76	91.5
Hordley Hospital ..	122	70	57.4
Port Maria Hospital ..	132	122	92.4
Buff Bay Hospital ..	91	83	91.2
Annotto Bay Hospital ..	76	64	84.2
Stony Hill Reformatory ..	37	31	—
Richmond District ..	35	34	—
Linstead Hospital ..	16	9	—
Union Poor house ..	12	2	—
Morant Bay Hospital ..	12	9	—
Clarks Town District ..	12	7	—
Chapelton Hospital ..	11	8	—
Falmouth Hospital ..	8	5	—
Crofts Hill District ..	6	4	—
Mandeville Hospital ..	4	4	—
St. Ann's Bay Hospital ..	3	1	—
Montego Bay Hospital ..	2	2	—
Ulster Spring District ..	1	1	—
Unknown, no name, post mark illegible	48	43	89.5
Total	885	710	80.2

The percentages for numbers below 40 have not been stated since they would obviously be misleading.

In addition to the above the following examinations are reported as having been made locally.

Dr. Peck, as last year, has made a consistent examination of short term prisoners in the Spanish Town Prison and the following are his results:

Parish.	Total cases examined.	Cases Infected.
Kingston	73	35
St. Andrew	34	21
St. Thomas	60	46
Portland	87	66
St. Mary	246	185
St. Ann	105	73
Trelawny	82	55
St. James	55	40
Hanover	43	32
Westmoreland	111	74
St. Elizabeth	113	74
Manchester	118	94
Clarendon	117	82
St. Catherine	134	109
	1,378	986 or 71.55 per cent. of the whole number examined.

It will thus be seen that of 1,378 cases examined 986 were found to harbour the worm or 71.55 %.

No microscopical examination of fæces took place otherwise, on all probability a much larger percentage would have been found to be infected.

Of the total number examined only 2 are reported as showing signs of anæmia.

Many of these prisoners harboured the Tricocephaalus Dispar in addition to the Hookworm.

THYMOLISING ON THE ESTATES.

During the year a systematic Thymolising of the Immigrants on certain estates was carried out. Each immigrant was ordered to have three doses of Thymol.

Three senior Dispensers from various hospitals were told off to do this work under the guidance of the District Medical Officers in charge of the Estates in the following districts:—

District.	Coolies Thymolised.	Creoles Thymolised.
Plantain Garden River	217	5
Linstead	95	—
Port Antonio	714	—
Port Maria	765	545
Richmond	300	1
Annotto Bay	999	—
	3,090	551 Total 3,641

As the thymolising in so far as the creoles was concerned was purely a voluntary matter it will be noticed that with the exception of one district, few creoles availed themselves of the opportunity of the free administration of thymol.

THYMOLISING OF NEW BATCHES OF IMMIGRANTS.

During the early part of the year, 1913, three vessels, the s.s. Indus, the s.s. Mutlah and the s.s. Chenab conveying immigrants from Calcutta arrived at Port Royal, carrying respectively 374, 246, and 527 immigrants.

All immigrants were landed at the Quarantine Station with a view to their being thymolised for Hookworm.

1. Of the total number of 374 Immigrants on Board the s.s. Indus of whom 265 were males and 109 females, 210 or 56.43% were found to be infected with Hookworm, of the males 57.33 per cent. and of the females 52.20 per cent. were found to be infected.

2. Of the total number of 246 immigrants on board the s.s. Mutlah, 177 were males and 69 were females. Of the total number 210 or 56.43 per cent. were found to be infected with Hookworm. Of the males 153 or 57.33 per cent. and of the females 57 or 52.20 per cent. were found to harbour the worm.

3. Of the total number of 527 immigrants on board the s.s. Chenab 289 were males of whom 229 were found to harbour the worm; while of the 238 females 62 were found to be infected.

In many cases women bearing or suckling children were not dosed but these will be treated as soon as they are in fit condition to bear thymolising.

The Medical Officer in charge of the Quarantine Station reports many cases of marked anæmia among the coolies as having been noticed by him which improved wonderfully after the treatment with thymol.

Dr. Welsh the medical officer on board the s.s. Indus had, during the voyage, been treating the immigrants under his charge for hookworm in so far as his drugs allowed and had exhausted his Thymol and Napthol B having treated no less than 180 cases, and had found the worm in the stools of 122, besides many other varieties of worms.

The Medical Board that examined the Immigrants on their arrival in Jamaica state that it is therefore evident that there is no insuperable obstacle to treating coolies on board during the voyage from India, and are of opinion that the period on board ship offers the completest facilities for thoroughly thymolising the immigrants.

Without doubt the effects of Hookworm infection have for years been overlooked and many cases of Hookworm infection have surely been attributed to malaria and other diseases.

Dr. Turton, District Medical Officer, Stony Hill, states as follows:

"that he knows of 38 cases in which ova were found in the fæces; as to cases seen by the roadside, about which there is no reasonable doubt, they run into hundreds;

"that it has become yet more clear that this infection is responsible for the greater part of the poverty and physical disability in his district, while following on this poverty and physical disability comes prædial larceny, which is rampant. He has no coolies under his charge."

Dr. Moseley makes the following remarks:

Ankylostomiasis is becoming a serious menace to the health of the labouring classes, 633 cases were treated in the Hospital during the past year, and this by no means represents the number of persons who were found to be harbouring the parasite, as patients admitted for other ailments were found to be infected.

I have noticed that persons coming from the western end of the Island seem to suffer from a most intractable form of the trouble, that it is most resistent to Thymol. In point of fact I have not had the gratifying results that one reads of in Text books and that Medical Officers so frequently write of in their reports, in treating the disease with Thymol. I have several coolie patients in hospital, who during the course of their treatment have had several ounces of the drug whose stools still show the same number of ova, one lad had had nearly five ounces and although his general appearances are much improved there is no diminution in the number of ova present.

I should think some legislation on this subject is necessary; that is to compel a person once ankylostoma has been diagnosed, to remain on treatment until he is medically certified as being free from the worms. A person suffering from an anklyostomic infection is as much a danger to the community as a person suffering from *yaws, or any other ordinary infectious ailment.*

One may practically say that by far the larger number of cases of anæmia, debility and pustular eruptions of the lower limbs that enter the hospitals are cases of Hookworm infection while many cases of Dyspepsia and even supposed Rheumatism are due to the same cause.

The necessity for general treatment of this disease seems to be of much more importance and public utility than that of any other.

The ideal localities for the development and spread of the Hookworm are plantations on which bananas and cocoa trees are mixed, there being moisture, fresh air and shade all combined.

The General Penitentiary, June 7th, 1913.

Hon. S.M.O.,

339 new prisoners were examined at the Penitentiary for Hookworm during the year ended March 31st, 1913. About 70 per cent. were found to be infected. The number of infected cases were slightly less than last year: This may have been due to:

(a) the long drought that prevailed in many parts of the Island proving unfavourable to the development of the embryo worms.

(b) one of my best searchers was away for a few months and the man who worked in his place was not so diligent: possibly some cases may have escaped detection.

In a few cases whip worms and round worms were found. A coolie had two tape worms (T. Sajinata).

I have no special remarks to make on these investigations.

It is now three years since systematic search for Hookworm has been made among new prisoners committed to the Penitentiary and in more than 70 per cent, the parasite has been revealed by simple naked eye examination alone, without the aid of a microscope. These results clearly show how prevalent it must be in the agricultural population throughout the Island and how gravely the disease resisting powers of these people must necessarily be reduced from this cause.

Sgd. M. Grabham.

Hurricane Damage to Hospitals.

On November 17th and 18th a destructable hurricane took place in the west end of the Island causing a great deal of damage to the hospitals situated in Sav.-la-Mar and Lucea with minor damage at Montego Bay.

At Sav.-la-Mar one male ward, the female ward, the Dispenser's and Matron's quarters, the Dispensary, the Infectious wards and dirty linen room and some latrines were completely destroyed.

At Lucea the roof was completely blown off the hospital inland while the Matron's and Dispenser's quarters of brickwork were unroofed and partly wrecked, the kitchen wrecked and the covered way blown away, the Mortuary was unroofed and the washhouse destroyed. The male latrines disappeared into the sea. All windows were blown out.

At Montego Bay some doors were blown away and the greater portion of the wire mosquito screening was torn off and blown away, while rain came through the roof in great quantities the result of which is seen on the paint of the hospital at present.

Fortunately no lives were lost owing to the damage done to these hospitals by the hurricane, a somewhat extraordinary fact considering how completely wrecked the hospitals were.

The patients from Lucea Hospital were removed to Rusea's School where a temporary hospital was set up on the opposite side of the square from the Court House. This building was occupied immediately after the hurricane took place on November 17th and was vacated on the 8th April, after having been cleaned and disinfected.

Subsequent to the hurricane in November last there was much malaria amongst the peasantry in the parishes of Westmoreland and Hanover very many of whom were unable to pay for medical attendance or to purchase medicines.

His Excellency the Governor approved of the free distribution of quinine for a period of three months to such persons as were destitute, and the distributing of the quinine was kindly undertaken by the Clergymen in the parishes through the heads of their respective denominations and by the Managers of Schools in the parishes, through the Superintending Inspector of Schools and by two Prsebyterian Indian Catechists.

Some 39 lbs. 12 ozs. of quinine was issued during the period but only one reapplication was made for quinine.

After the hurricane a very serious and extensive outbreak of Dysentery, Colitis, and other Gastro Intestinal complaints occurred which lasted for months and accounted for many deaths.

Want of proper housing, exposure and improper food and possibly the dissemination by flies all probably tended to start and keep up this outbreak.

QUININE SALE AND DISTRIBUTION.

The following is record of the quinine output from the Island Medical Store during the year 1912-13.
The amount of quinine supplied to

1. The Police for their own consumption was 50,050 5-grain doses = 35lbs. 12ozs.; as against 41,650 5-grain doses or something over 29lbs. during the year 1911-12.
2. The Police for sale was 8,000 packets of 5-grain tablets as against 6,000 packets during the year 1911-12.
3. The Malaria Commission for distribution was
   65,800 doses or 47lbs. in 5 grain tablets
   119,000 doses " 51 " " 3 " "
   73,500 doses " 21 " " 2 " "
   14,000 doses " 2 " " 1 " "
   or a total of 121 lbs. by weight as against
   110,600 doses or 79lbs. in 5 grain tablets
   219,302 doses " 94 " " 3 " "
   10,500 doses " 3 " " 2 " "
   or a total of 176lbs. by weight during the year 1911-12.
4. The Post Offices for sale was:
   280,000 packets of 5 grain tablets
   5,000 " " 3 " "
   4,000 " " 2 " "
   3,000 " " 1 " "
   or a total of 292,000 doses of quinine of various strengths as against 247,100 doses in the year 1911-12.
5. The various estates on which indentured immigrants are employed was 202,300 5-grain doses equal to about 144½lbs. by weight as against 232,750 5-grain doses or 166lbs. 4ozs. by weight, during the year 1911-12.
6. The various Parochial Boards was by weight of Sulphate of Quinine
   Sulphate 13lbs. 2ozs. Tablets 2½lbs. or 15lbs. 10ozs.
7. Amount distributed in the hospitals and asylums:
   Sulphate in powder 174lbs. 6ozs. Tablets 15½lbs.

The total monetary receipts from quinine supplied the Police and Department excepted was £511 5s. 4d.

QUININE ON ESTATES.

In answer to a Circular enquiring as to the giving of prophylactic doses of quinine on estates the following replies have been received.

Dr. Clark, Linstead, states:—That doses of 5-grains of quinine are administered to the coolies on estates in this district in some instances daily in others three times a week and again in others with no particular regularity.

Dr. Evans, Hordley states:—That some Overseers give a 5-grain tablet twice a week others on every other day, but as far as he can gather this is not done continuously and sometimes, for weeks, none is given.

Dr. Johnston, Adelphi, states:—That there is no routine administration of quinine to the coolies in his district.

Dr. Moseley, Port Antonio, states:—That five grains of quinine are given tri-weekly to the coolies on the Estates in his district.

Dr. Cassidy, Vere, states:—That all estates have quinine tablets but that they are not administered systematically, they are given when applied for. He has issued instructions for systematic dosage.

Dr. Beard, Grange Hill, states:—That on one estate coolies receive 5 grains of quinine four days in the week, on another 5 grains three days a week, and on another for some months the coolies only received what they received at his surgery or from Dr. Harvey at the Hospital.

Dr. Ritchie, Richmond, states:—That 5 grain quinine three times a week is recommended as a prophylactic for coolies on the estates. During and after rainy seasons I have recommended that this 5-grain dose should be given every day.

Dr. Thomson, Montego Bay, states:—That 5 grains of quinine Sulphate are administered twice a day for two days each week to coolies on estates.

Dr. Harvey, Sav.-la-Mar, states:—That he is informed by the Overseers of the various estates that five grains of quinine are administered to each adult coolie daily and to children in proportion.

Dr. Joslen, Annotto Bay, states that:—Quinine is given regularly on only a few estates. He has recommended the Overseers on the estates to give 15 grains on two consecutive days in each week either in one dose each day or in three doses of 5 grains. Saturdays and Sundays for preference. Some of the Overseers accede to the suggestion readily. Some say it is of no use as the coolies will not swallow it.

One Medical Officer informs me that on asking an Overseer whether quinine was given to the coolies the reply he received was as follows: Yes it is given regularly but you will find that it will all be in the yard as the coolies pretend to swallow it and go into the neighbouring yard and spit it out

It is evident, judging from the reports sent in from some of the Medical Officers, that quinine is not given on all the estates with that regularity with which it should be given.

Again it is hoped that arrangements will be made for the distribution of free quinine as a Sanitary and Prophylactic measure to the children in those schools which are in malarious climates or which receive pupils from malarious climates, this is very necessary.

MALARIA.

Herewith are attached two charts one showing the frequency of admissions of malarial cases to the Public General Hospitals generally and the other showing admissions to those in the north eastern portion of the Island where the large majority of such cases occur.

There seems to be no doubt that banana planting and malaria go hand in hand very well and that the trenching on banana estates provides excellent breeding places for mosquitoes.

Practically all the North-eastern hospitals are fed by labourers from banana estates, a fact that would seem to account for the large number of cases of Malaria admitted to them.

Admissions to the various Hospitals month by month for Malaria.

Hospitals.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Total.
Morant Bay ..	8	10	7	5	14	6	11	22	26	43	25	18	195
Hordley ..	35	45	20	50	47	32	51	46	45	55	42	44	512
Port Antonio ..	95	97	105	263	292	379	364	288	236	128	109	67	2,423
Buff Bay ..	22	27	19	32	61	60	75	114	96	90	82	50	718
Annotto Bay ..	204	169	162	110	137	161	178	161	286	154	85	99	1,906
Port Maria ..	39	14	9	21	27	43	48	70	82	91	73	47	564
St. Ann's Bay ..	2	2	1	4	3	1	4	20	26	34	14	11	122
Cave Valley ..	..	..	..	..	..	1	2	..	..	..	..	..	3
Falmouth ..	6	1	1	2	3	4	7	1	..	7	3	4	39
Montego Bay ..	12	6	17	1	6	5	13	26	27	20	24	24	181
Lucea ..	..	2	..	1	1	..	3	..	1	3	9	9	29
Sav.-la-Mar ..	19	11	43	53	46	61	59	43	6	14	59	93	507
Black River ..	1	3	..	1	5	4	7	11	6	2	5	3	48
Mandeville ..	..	..	..	..	..	2	1	1	..	1	..	1	6
Chapelton ..	..	1	4	4	7	8	12	18	6	7	5	3	75
Lionel Town ..	76	51	46	55	36	45	77	83	94	74	36	40	713
Spanish Town ..	19	22	25	24	24	28	40	64	52	57	30	15	400
Linstead ..	1	..	2	1	4	4	2	3	2	4	1	2	26
Kingston ..	3	3	6	6	7	7	14	19	13	25	24	5	132
	542	464	467	633	710	850	967	992	1,004	809	626	535	8,599

WATER SUPPLIES.

Stony Hill, Dr. Turton:—Generally speaking small streams supply the district with water. The water supply of Stony Hill is a surface spring the catchment area being mainly land at the back of the shops with latrines on it. Household water and shop sweepings thrown on it and road washings flowing on it during rain. The spring has been condemned and its condition has been brought to notice yearly for at least 13 years. Its condition is a constant source of possible danger to the persons who use it. There are wells at the Industrial School, the water of which has been reported on as potentiary dangerous.

Gordon Town—Dr. Sharp states that:—The Hope river supplies Gordon Town—protected by law. The Fall river supplies Mavis Bank and Mt. Charles and is fairly free from pollution but should be protected by Law.

St. Davids, Dr. Clarke :—States that water is obtained from mountain streams and rivers.

Morant Bay—Dr. Bartlett:—The water supply derived from the town water works is ample and of good quality—the Hill residences however suffer from insufficient distribution.

Port Antonio—Dr. Moseley states that:—The water supply during the year has been a source of a great deal of trouble and dissatisfaction. The 10,000,000 gallon reservoir gave out early in the year, the water he understands was only sufficient at one time to allow of its being turned on for an hour night and morning and even this would have been impossible had it not been for the generosity of the United Fruit Company in turning on their supply for the lower part of the town. The conditions were undoubtedly unusual but then it is always advisable to make provision for unusual conditions.

Buff Bay—Dr. George:—States that Buff Bay depends almost entirely on wells for its water supply although a large proportion of the population obtain water from the Buff Bay River.

The Public Institutions are supplied with water from a spring on Kildare property—a reservoir having been built and pipes lead to the various buildings.

Annotto Bay—Dr. Joslen states that:—Public water supply obtained from a stream on Fort George property. Water cannot be polluted. It has been analysed and found to be first class.

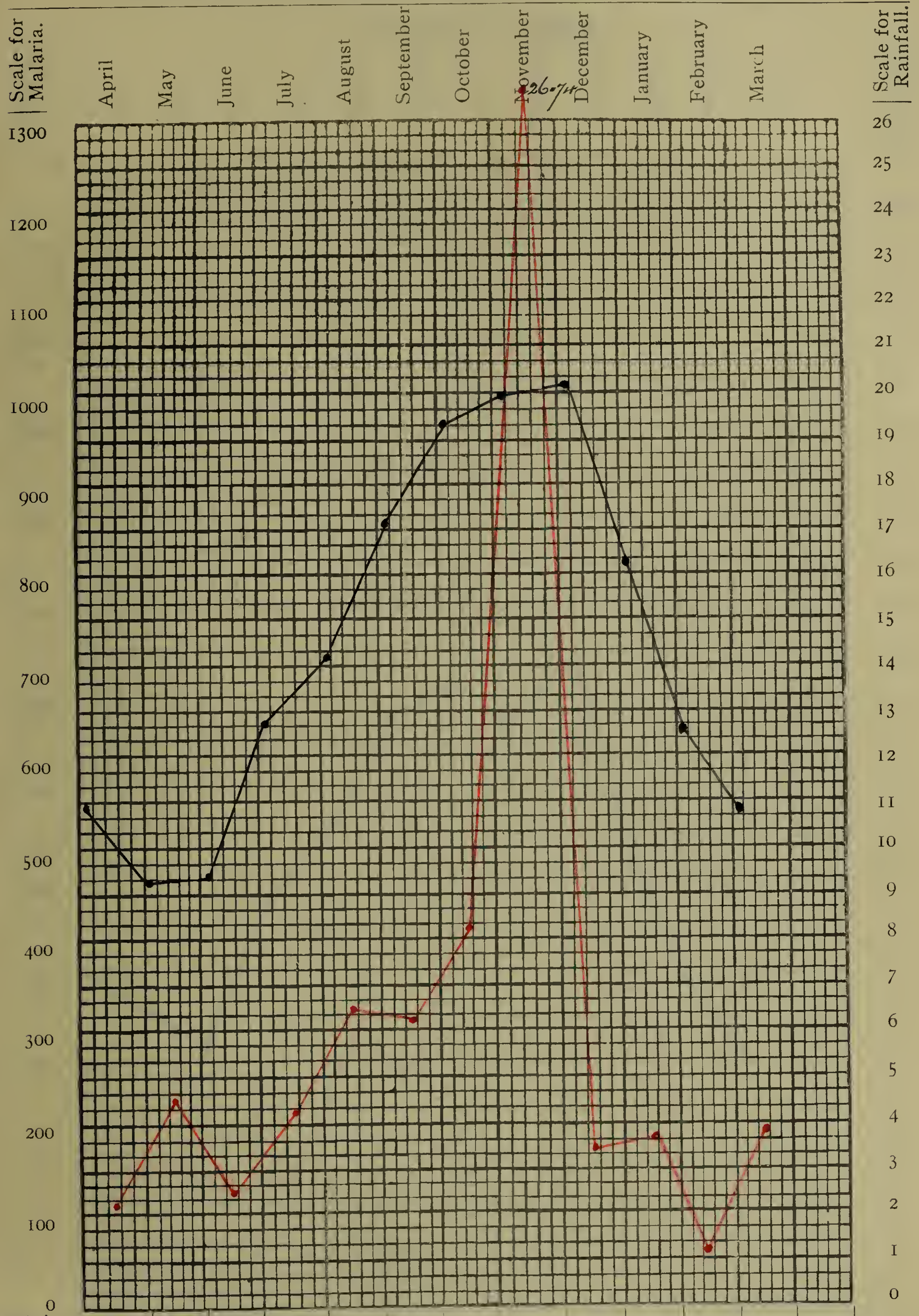
Richmond—Dr. Ritchie:—States that Richmond depends largely for its water supply on a stream which runs through the village.

Port Maria—Dr. Lecesne:—States that the supply is obtained from Crescent 7 or 8 miles away. Water excellent and there is no risk of infection at the intake.

That Oracabessa and other settlements are supplied by springs which are protected by covered impounding dams.

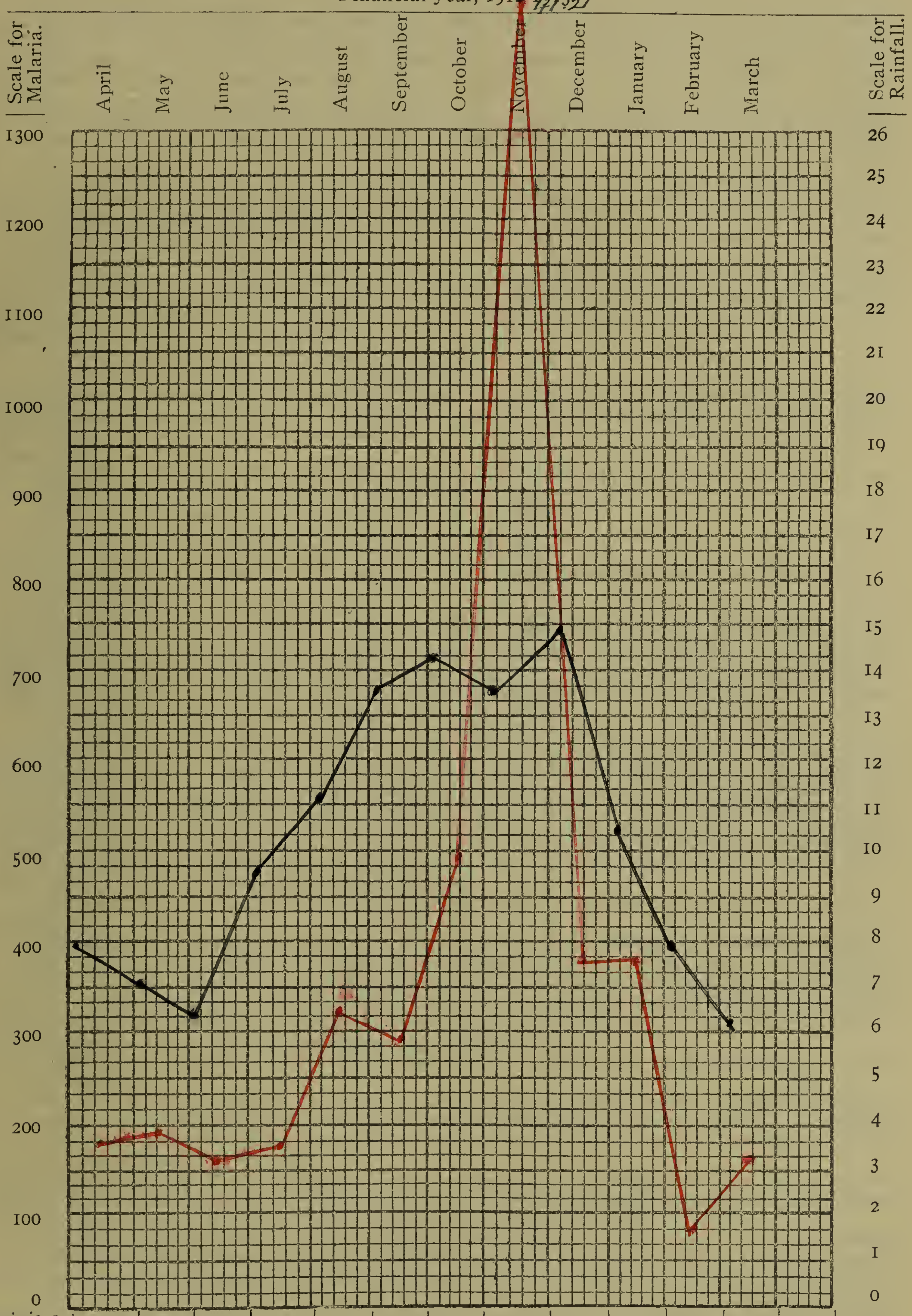
Gayle—Dr. Gideon:—States that the chief sources of water supply are rivers and springs and that the Parochial Board is moving in the matter, the springs at Saltrun and Mount Aggus having been dealt with, while work is now proceeding on the Carron Hall and White Springs.

Chart showing the monthly number of admissions to the Public Hospitals in Jamaica for Malaria as well as the monthly Rainfall during the Financial year, 1912-1913.



Total Admissions, 1912-13	542	464	467	633	710	850	967	992	1,004	809	626	535	Total	8,599
Mean Rainfall ...	2.21	4.60	2.43	4.30	6.38	6.23	8.25	26.74	3.50	3.65	1.14	3.79		
Average Rainfall	4.68	9.33	8.22	5.23	6.89	7.91	10.75	7.44	5.48	3.89	3.07	3.34		
Total Admissions, 1911-12	348	417	537	741	624	651	801	920	889	892	713	500	Total	8,033

Chart showing the monthly number of admissions to the Public Hospitals in the North Eastern Division of Jamaica for Malaria as well as the monthly Rainfall during the Financial year, 1912-1913.



Total Admissions, 1912-13	395	352	315	476	554	675	715	679	745	518	391	307	Total	6,123
Mean Rainfall ...	3.64	3.76	3.12	3.64	6.38	5.83	9.76	41.21	7.56	7.63	1.56	3.13		
Average Rainfall	5.31	10.82	10.75	6.28	6.89	8.68	13.22	13.54	10.28	7.15	5.29	4.61		
Total Admissions, 1911-12	205	272	307	514	429	476	605	723	674	691	562	348	Total	5,806

The Hospitals in the North Eastern Division are the following :—

Hordley, Port Antonio, Buff Bay, Annotto Bay, Port Maria.

St. Ann's Bay—Dr. Myers states that—The water supply of the town is by pipe from the Roaring River.

Moneague—Dr Curphey:—States that Moneague, Claremont and Alderton are supplied by tanks and ponds but that the other villages are supplied by ponds from which cattle and other live stock also drink.

Cave Valley—Dr. Hargreaves:—Water for the great part of this district is derived from tanks and ponds not always pure, in fact during long periods of drought stern necessity alone would make anyone use it

The question of a water supply for this district is an old one and is still being considered, but lack of sufficient water for ordinary purposes is one of the great hardships in the district and must be remedied if the sanitary conditions of the district are to be improved.

Falmouth—Dr. Campbell states that:—The Martha Brae River supplies Falmouth, the villages obtain water from large ponds and small rivers.

Ulster Spring—Dr. Smith:—There is much improvement in the water supply, the chief sources of supply the Dam and the Big Spring are fairly well kept since they were brought under the protection of the law. A cement drinking trough has been put up at Bakers Well and a contaminated gutter which used to empty into it has been diverted.

Duncans—Dr. Purchas:—The Clarks Town Supply is obtained from Ponds around; Dr. Purchas states that nothing can be done to prevent pollution.

Montego Bay—Dr. G. W. Thomson states that:—The water supply is fairly good but that scarcity of water often exists especially at the Hill residences and at the outlying portions of the town where, for instance, the hospital stands, due probably to faulty management, but it is difficult to say where the blame lies.

After the hurricane of 1912, there was some pollution by animals due to damage to fences, these have been erected again and so that cause of, pollution no longer exists.

There are no filter beds nor any other means of purification.

(2) In the smaller villages the water supply is not satisfactory as three is no thorough protection either of the streams or ponds from which the water is obtained.

(Recent analysis of Montego Bay water has shown the specimens sent up to be either suspicious or badly polluted).

Lucea—Dr. Cooke states:—That the water supply of Lucea town is unsatisfactory, water being supplied by pipes from a reservoir and is only continuous during the rainy seasons—it is also obtained from wells. These wells are shallow and in any other community would be closed but as the pipe supply is so irregular they have to be kept open. The Government has started erecting a large subsidiary reservoir to be filled by a hydraulic pump from wells sunk in the bed of a gully, this work has been going on for the past 12 months but apparently the work is spasmodic.

Dr. Sinclair—Little London states:—That as regards the villages in his district the water supply is bad being derived from morasses, from ponds in which animals defæcate and micturate and rivers and streams all more or less polluted by the washing of clothes and the inflowing of rain water bringing with it fæcal matter and debris of various kinds. Bad as most of the water supplies are one can hardly imagine what they would have been if we had had anything like a drought. The conditions of the ponds and other accumulations of water immediately after the storm was appalling. The amount of decaying vegetable matter together with the amount of sea water blown into them by the storm made the water quite unfit for drinking purposes, both for men and the stock. The quantity of rain that fell soon after the storm did an immense amount of good.

Sav.-la-Mar—Dr. Harvey states:—That the water supply is by pipe-water, good, but not always sufficient.

Balaclava—Dr. Lofthouse states:—That the three chief villages, Balaclava, Siloah and Magotty are all, in the main, supplied by the river—there are some private tanks also—the water in the river cannot be very pure as cattle, horses, mules, etc., are watered and washed in it from its source to its end (in so far as the district is concerned) to say nothing of filthy contaminated clothes which are cleaned in it. A year ago Dr. Todd, the Medical Officer of Health came and went over the matter in detail, but nothing has been done so far to improve the conditions.

Santa Cruz District—Dr. Calder states:—That the water supply is by tanks and wells and is more or less impure.

Pollution of water supplies in his opinion, constantly occurring owing to the catchment being often the roadway to the residence or where wells are the source owing to the water being taken in dirty vessels or in many instances, the drawers of water stand on the covering of the well and impurities are thereby washed back into the well.

Newport—Dr M. M. Meikle states:—That the completion of a number of tanks will relieve the people of long journeys for water during a drought, but the ordinary water supplies in nearly all the districts must continue to be polluted on account of the ground catchment.

Christiana—Dr. Farquharson states:—That the water supply is from tanks, rivers and springs.

Chapelton—Dr. Thomson, A. W., states:—That in none of the town or villages is a water supply provided—water being obtained from tanks, springs and rivers and consequently cannot be considered pure.

May Pen—Dr. Earle states:—That the village of May Pen is supplied with water from the Rio Minho, carried in pipes about 7 miles—there is filtration consequently the purity of the water varies. There is no protection at the intake from pollution.

In rainy weather the water is so muddy that it is quite opaque at a depth of 1 foot. No precautions are taken to make the water pure or safe.

Four Paths village is supplied with water from a well on Sheckles Pen, it is drawn up in buckets and no precautions are taken to avoid pollution—many people also take water from adjacent mud ponds.

Lionel Town—Dr. Cassidy states:—That no village has a proper water supply. Wells and river water are the sources. None of the water examined during the year was above suspicion. In one case water was taken from a well 80 feet and found to be polluted.

Crofts Hill—Dr. Strudwick states:—The villages are supplied with water from springs, and small streams in the case of the latter the purity of the water is often questionable.

Spanish Town—Dr. Peck states:—That the water supply of Spanish Town is from the Rio Cobre, of fair quantity, building of reservoirs have been receiving attention in the Highgate and St. John's District and thanks are due to the Commissioner for the deep interest he has taken in the matter of water supply. The Commissioner has taken steps to havs notice placarded at different streams warning people against pollution and the District Constables are to make patrols to avoid pollution of water supplies.

Old Harbour—Dr. Simpson states:—That the water supply of Old Harbour is derived from a dam at Bartons, thence through an aqueduct, leaks badly and being an open channel is accessible to pollution by the inhabitants of the various houses that have been built along its course—there is no doubt that the water is considerably polluted by the washing of clothes, etc. The whole water supply of Old Harbour is defective and insufficient for the needs of the population since the pipes are extended to the villages of Old Harbour Bay and Church Pen. By virtue of the original agreement the Jamaica Tobacco Co., as owners of Colbeck, take whatever water they require for the purposes of irrigation and the ratepayers obtain the remainder. As the company are extending the acreage under cultivation every year, the water supply becomes steadily more inadequate for the requirements of the ever increasing ratepayers. The water may be polluted for a distance of two miles anywhere between the intake and reservoir by either man or animals.

Four inch iron pipes are now being laid down by the Hon. the Commissioner in the aqueduct to prevent pollution and stop waste.

A cement drain has been made to carry storm water from the mountain road into the cement gutter already constructed upon the opposite side of the Vere road.

A new cement water tank has been erected at the Railway station, to take the place of the old wooden structure—the capacity of the new tank is more than twice that of the old.

A cement water tank in the roadside at Bartons has been doubled in size.

Overcrowding for Hospitals.

With regard to the various hospitals it may be mentioned that there has been distinct overcrowding in Annotto Bay, Port Maria and Port Antonio.

In Port Antonio on one day there were 292 patients or about three times the number that the hospital should contain. This hospital has been chronically overcrowded for some years.

Annotto Bay has also been overcrowded, not to such an extent as in previous years, it is true, but nevertheless to an objectionable extent and 187 patients have been inmates of this hospital in one day instead of some 120 as it should have held when full.

Training of Nurses.

It is to be noted with pleasure that one or two of the Medical Officers in charge of hospitals have been able to start or carry on a system of training for nurses in connection with their hospitals. This is a step in the right direction and can only lead to benefit to the hospitals concerned and to the Island generally. Dr. George, District Medical Officer, Buff Bay is the most recent officer to inaugurate this system.

Hospital Staffs.

The work done in the hospitals has been, as a rule, very well done, but it is necessary to point out as has frequently been represented the fact that many of the large coolie hospitals are greatly undermanned from the point of view of medical attendance and supervision. One medical officer can only do one medical officer's work and no more—but in some cases at times they are compelled to do two or three men's work. This is no advantage to anybody concerned, but a great drawback and should be remedied. Attention has been called to this fact before.

The amount of clerical work now required to be done in the hospitals by the Dispenser is now so great that in some cases it undoubtedly leads to their being compelled to neglect to a certain extent their ward work and general supervision and throws upon them what is more the work of an "Assistant" or "Clerk." The question of having a clerk attached to our large country hospitals is a matter for future consideration, and has already been mentioned.

Absence of Isolation Wards.

There is great difficulty in most of the hospitals in isolating cases of infective disease, owing to the fact that there are no special wards to isolate them in. In event of any serious outbreak of disease in some of the Public General Hospitals it would be difficult to effect early and complete isolation.

There are practically no wards except at Buff Bay, Mandeville and Falmouth hospitals where any sufficient isolation could be effected at all, and this is a necessity that requires attention as at any moment an outbreak of disease may occur and nothing would be ready at hand to deal with it.

At present it is difficult even to isolate a case of Typhoid fever or Phthisis, however bad, or however much it may need isolation or quiet.

Non-medically Registered Deaths.

Once again the relatively large number of non-medically certified deaths has to be called attention to—a list is subjoined.

In many cases, without doubt, this lack of medical registration is due to the insufficiency of medical facilities in the way of district medical officers, who, often live at long distances from one another and from the outlying portions of their districts.

As a result of this lack of medical attendance and for other reasons, one has to record the fact that nearly three quarters of those who die are buried without any medical evidence as to the cause of their death; and one may fairly surmise that the causes of a very large proportion of the deaths are only a mere conjecture. The value of present records may therefore be set down as practically "nil."

The Registrar General has kindly furnished me with the subjoined list which speaks for itself.

In a previous year's report attention has been called to the fact that a large proportion of uncertified deaths are annually recorded as being due to "undiagnosed fever." It may well be asked how many of these are due to Hookworm disease and Enteric Fever.

Parish.	Total deaths.	Number of non-medically certified deaths.
Kingston	1,926	364
St. Andrew	1,602	957
St. Thomas	1,075	775
Portland	1,473	1,037
St. Mary	1,570	1,158
St. Ann	1,290	1,084
Trelawny	790	604
St. James	1,098	897
Hanover	1,002	820
Westmoreland	1,725	1,377
St. Elizabeth	1,982	1,789
Manchester	1,402	1,246
Clarendon	1,959	1,658
St. Catherine	2,556	1,965
	21,450	15,731

CONVEYANCE OF PATIENTS TO HOSPITAL.

The means of conveyance of patients long distances to hospital are not satisfactory.

Many a patient has to be carried on a stretcher for miles; or labourers of estates have to be carried in banana or cane waggons, and it is stated that, in some cases, inasmuch as the waggons may be in use during the day time that accidents may have to wait for conveyance to hospital until such time as a waggon can be obtained, possibly only after its return from work in the evening.

One District Medical Officer has suggested that it would be a good thing to have an ambulance attached to each estate or group of estates in which any case of accident or sudden or serious illness could be conveyed to hospital at once.

The idea is a good one and might be taken up by the Parochial Boards with a view to conveying cases of serious illness long distances to hospital.

INFECTIVE DISEASES.

As a thorough and proper examination of specimens of blood are now being made by the Island Bacteriologist, Enteric Fever can be more accurately distinguished from other fevers than used to be the case.

Doubtless in past time, many cases of Fever have been classed as "Malaria" that were never Malaria, and that disease has in consequence gained a prominence that it hardly deserves to hold in the Island.

Enteric Fever has come very much into prominence this year due to the fact that bacteriological examinations are now so much made. The number of cases recorded as having been treated in the country hospitals during the year are as follows:—

	Typhoid.	Deaths.	Paratyphoid.	Deaths.
Morant Bay	11	5	2	0
Hordley	27	2	26	0
Port Antonio	23	8	7	1
Buff Bay	6	2	..	..
Annotto Bay	13	4	..	..
Port Maria	14	5	2	1
St. Ann's Bay	14	2	1	1
Cave Valley	..	..	..	..
Falmouth	17	3	..	..
Montego Bay	52	8	8	2
Lucea	7	4	..	..
Sav.-la-Mar	12	1	..	..
Black River	12	2	..	..
Mandeville	20	5	5	0
Chapelton	38	21	6	1
Lionel Town	4	2	..	..
Spanish Town	36	4	5	1
Linstead	16	4	4	1
	322	82	66	8

The following is the number of cases of Enteric Fever cases admitted to the Public Hospital, Kingston, from the Parish of St. Andrew during the following years:—

1911-12—Cases, 30. Deaths, 12. 1912-13—Cases, 54. Deaths, 21.

In addition to which the following reports have been made by various medical officers with reference to Enteric Fever.

1. Plantain Garden River District—Dr. Evans states that there were a greater number of cases than in any previous year during his appointment—some 60 cases were diagnosed by him and many other cases were seen at his surgery which did not return and are likely to be enteric—no special district was affected, they came from all parts.

Morant Bay District—Dr. Bartlett states that 16 cases of Typhoid Fever and 4 of Paratyphoid fever were known to have occurred.

2. Port Antonio District—Dr. Moseley states that there was a marked increase in the number of typhoid cases notified—three years returns are as follows:—

1910-11—25 cases. 1911-12—23 cases. 1912-13—43 cases.

3. Richmond District—Dr. Ritchie states that the disease was prevalent during the latter part of the year.

4. Cave Valley District—Dr. Hargreaves reports 7 cases all close together. Excreta had been thrown into the coffee walk just outside the house doors. The house compounds were overgrown with bush and in a very insanitary condition—the medical officer of health was called in and had matters rectified.

Montego Bay District—Dr. Thomson states that quite a number of cases spread over the whole period under review—about 70 cases of typhoid and paratyphoid altogether.

Is of opinion that the infection is principally due to flies.

The patients are often ill from two to 4 weeks before they are reported to the health authorities or take treatment consequently all that time they are a source of infection to others, no precaution being taken.

Hanover—Dr. Cooke states that 7 cases of typhoid have occurred since the hurricane and that at the same time (January and February) an abnormal number of flies were present.

Sav.-la-Mar District—Dr. Harvey states that cases of typhoid have been more numerous than usual.

Santa Cruz District—Dr. Calder states that typhoid occurred all over the district mostly in the district extending from Mountainside to sea coast. He states that typhoid which is endemic increased largely from October and still continues in a diminished rate.

He is also of opinion that all cases represented as dying from dysentery, malarial fever and most of the vomiting cases are cases of typhoid fever. 84 cases were seen by him.

Manchester—Dr. Meikle reports ten cases as having been known to exist.

Dr. Farquharson reports a few cases of typhoid.

Clarendon—Chapelton District—Dr. Thomson reports an outbreak of typhoid amongst the men working on the railway extension—20 cases in all—chiefly from the new road district—they occurred from June to August—the disease seems to have been introduced by labourers from Manchester and was probably spread by flies.

St. Catherine—Dr. Simpson states that two imputed cases spread the disease by means of flies to five other cases.

Spanish Town District—Dr. Peck reports 46 cases of typhoid and five of paratyphoid.

Plantain Garden River—Dr. Evans states that nearly all continued remittent fevers of from three to nine days duration which prior to the advent of the Bacteriologist were termed remittent malaria have been found to be paratyphoid—many were of a very severe type accompanied by persistent vomiting.

The Registrar General has kindly given me the subjoined list of the number of deaths from typhoid fever reported to him during the past year.

The Registrar General has kindly supplied me with the number of deaths registered during the year as having been due to Enteric Fever.

Kingston	85	Hanover	6
St. Andrew	7	Westmoreland	9
St. Thomas	12	St. Elizabeth	17
Portland	12	Manchester	12
St. Mary	16	Clarendon	33
St. Ann	14	St. Catherine	20
Trelawny	3		
St. James	13		259

DYSENTERY.

This disease has been very prevalent in various parishes and epidemics have been frequent and lengthy. In some cases the variety of Dysentery was amoebic in others Bacillary and frequently in an epidemic one met both varieties.

1. St. Thomas parish—Dr. Evans (Hordley) reports 132 cases, there having been three epidemics during the year in his district, one at Duckenfield, one at Bath and one at Long Bay and Fair Prospect in the Portland portion of his district. There were several deaths.

Dr. Bartlett, Morant Bay, states that Dysentery was prevalent, he had himself seen about 60 cases, as usual it seems to have followed the rains after a period of drought. The peasantry appear to regard the disease as "God sick" which means that medical aid is seldom sought for, the type was somewhat severe.

2. Portland Parish.—There was during the year a severe outbreak over a wide spread portion of the Port Antonio district of the parish chiefly near the coast which lasted for months. Dr. Moseley states that the number of cases seen must have totalled about 1,000. Both the amoebic and bacillary variety were met with. In the Buff Bay district 38 cases were seen 34 of which were of the Bacillary and 4 of the amoebic variety.

3. St. Mary's parish.—Dr. Joslen reports 60 cases of the amoebic and 2 of the bacillary variety, while Dr. Lecesne reports 21 cases.

4. St. Ann's Parish.—Some cases occurred of the Bacillary variety.

5. Trelawny.—Dr. Purchas reports an epidemic in the villages of Sawyers and Stewart Town during the end of the year, 5 deaths resulting.

6. St. James Parish.—Sporadic cases of dysentery were noticeable in the Montego Bay district. Those examined were found to be of the Amoebic variety.

7. Clarendon Parish.—13 cases were seen in the Chapelton district, variety not ascertained.

8. St. Catherine Parish.—A few cases occurred in the Spanish Town district chiefly of the amoebic variety.

Dr. Clark states that Dysentery has been epidemic throughout the whole of the Linstead district, section after section becoming affected.

It began in the Riversdale district, Glengoffe, Linstead, Bog Walk, Ewarton, Ivy, Victoria, Redwood, Gobay were all visited in turn by the disease. The numbers attacked were large and the mortality high. Treatment was handicapped by the peasantry putting their faith in "bush" remedies.

Both the amoebic and bacillary types were met with.

9. St. Andrews Parish.—Dr. Edwards states although Dysentery has been very slight a small outbreak of Colitis took place in the lower St. Andrew district.

Kingston.—A very lengthy and severe outbreak of Colitis and Gastro Enteritis took place in the Kingston district. It was suggested that this was due to pollution of the Ferry River water supply inasmuch, however, as the Ferry River water was only used for short periods at intervals this may be put aside as a mistake.

Dr. Harvey, Sav.-la-Mar, states:—That a serious outbreak of Dysentery became common after the hurricane, the type has been a severe one and many deaths have occurred among the lower classes from it, due chiefly to exposure and the want of proper nourishment while ill. He is unable to give even approximate figures in connection with the number of persons affected or the deaths that have occurred during the outbreak.

Although the Dysentery was general throughout the district, they were specially numerous in the Sav.-la-Mar, Bluefields and Cave districts.

In the majority of cases neither emetine or ipecacuanha seemed to be beneficial pointing to the fact that the majority of cases were not amoebic.

Dr. Sinclair, Little London, states:—That he has treated some 21 cases of Dysentery most of them of a mild type but some have been severe and deaths have occurred.

Dr. Sherlock, Lamb's River, states:—That there were some cases of Dysentery in February of the bacillary type.

OTHER EPIDEMIC OR INFECTIVE DISEASES NOT MENTIONED ABOVE.

Kingston —There was a considerable outbreak of Scarlet Fever and a great deal of Colitis, Entero Colitis and other intestinal complaints.

Stony Hill.—Chicken Pox was prevalent early in the year and Mumps in the latter part of the year; 3 cases of Scarlatine occurred and some Enteric.

Lower St. Andrew.—Colitis was very marked during the latter part of the year proving fatal in a large number of cases that neglected to call in medical aid early in the disease.

Gordon Town.—Some mild Malaria after the November rains also 3 cases of Typhoid.

St. Davids.—Bronchial and Pulmonary cases were common after the heavy rains in November.

Port Antonio.—Mumps was prevalent from January to March accompanied by an unusual number of cases of Orchitis.

Buff Bay.—A great deal of Colitis and Enteritis was met with, there having been more sickness of a severe type than usual.

Annotto Bay.—A number of cases of Stomatitis occurred in the same quarter as the Vomiting Sickness.

Port Maria.—Malaria was much less apparent than usual due to the prolonged and unprecedented drought and to the sanitary improvements.

Gayle.—Influenza was prevalen in January and Remittent Malaria was present in December after the rains of November. One case of Black Water Fever.

Adelphi.—Malaria and Gastro Intestinal diseases among children are always present.

Lucea.—Since the hurricane there has been a more or less general outbreak of Colitis.

Sav.-la-Mar —Malarial cases were very numerous after the hurricane.

SO-CALLED VOMITING SICKNESS.

During the year there has been the annual epidemic of this combination of diseases.

Dr. Harald Seidelin was sent out by the Tropical School of Medicine of Liverpool to investigate the disease and arrived on January 10th, 1913.

I had the pleasure of housing him during the time that he was in Jamaica.

He used the Government Laboratory at the Public Hospital to carry on his researches and was assisted by Dr. Scott, the Government Bacteriologist, and provided with whatever was necessary and in our possession in the way of Laboratory necessities.

He was kept informed by telegram of the cases as they occurred and was allowed a free Railway pass by the Government.

It is to be hoped that his report will throw some new light on the matter in addition to the information given us by Dr. Scott.

A History and Post Mortem Report form was during the year drawn up and forwarded to the various medical officers in whose district the so-called vomiting sickness occurs as a rule, and they were directed whenever called to see a case of the disease to fill in one or other form or both as the case might be. 184 of these forms were filled in and sent to Dr. Scott for record.

Small boxes containing slides and a tube of culture media were also sent by Dr. Scott to each District Medical Officer with the request that a culture and smear of spinal fluid should be obtained if possible from each case and sent to him for examination. This was done in many instances.

The following are the districts in which cases occurred, but reports as one can easily imagine in a very mountainous country are very incomplete.

	Cases.	Deaths.	Remarks.
Croft's Hill	4	4	
Duncans	—	28	Lasted from December to March. A considerable number of supposed cases were treated with stock medicines. 6 cases of recovery.
Buff Bay	18	—	Cases admitted to Hospital. 11 Post Mortems made outside hospital in addition.
Gayle	5	5	Only one seen during life, worms found in each case of Post Mortem.
Richmond	17	—	Only three seen during life. Said to be the first time that the disease has occurred in the parish as far as Dr. Ritchie knows. All occurred during March. 14 Post Mortems made.
Porus	24	—	And many others not seen by a Medical man.
Montego Bay	1	—	
Santa Cruz	1	—	
Lower St. Andrews	40	—	Probably other 20 cases in distant parts all those seen died. 18 Post Mortems. Most of the examinations were made in conjunction with Dr. Seidelin
Kingston	3	3	All seen after death. All shewed well marked signs of Meningitis.
Gordon Town	11	3	Of two of these cases seen alive at Mavis Bank one was unconscious and both were injected with 50 millions of Meningococcus vaccine sent by Dr. Scott. Both recovered. Occurred in Jany., Feby., March. Five Post Mortems held at Cameron Hall.
Stony Hill	**1**	—	
Annotto Bay	—	20	20 Post Mortem examinations were made in January, Feb. and March. The disease occurred in the districts of Epsom, Evandale, Finsbury, May River, Enfield, Riddington, Long Road and Rosemount mostly contiguous. The country is hill well watered; with high bush. Dr. Joslen states that this is said to be the first occasion on which the disease has been known to occur in this district. 50 per cent. of the cases were well fed and not by any means underfed.
May Pen	—	40	Dec. 3 cases seen after death. Jany. 13 cases seen after death, Feby., 21 cases seen after death; March, 3 cases seen after death; 40 cases in all.
Newport	—	11	11 Post Mortems held on cases reported.
Vere	. .	. .	1 case (an East Indian reported.)
Old Harbour	17	14	11 cases were dead before Dr. Simpson was called to see them. 6 cases seen alive and treated with serum, 3 recovered. The other 3 were moribund when seen. Contacts were treated with Dr. Scott's vaccine and none developed the disease. In almost every case the children lived in cottages on rocky hillsides. In all cases coffee trees, bush or vegetation of some sort grew up to the very walls of the houses; children mostly well nourished but many harboured worms. In all cases the clothing appeared to be inadequate for the weather nothing being warm from the waist downwards and several had colds in the head previous to the fatal attack. In several of the Post Mortem Examinations there was evidence of old standing brain disease pointing to previous attacks of Meningitis or to congenital Syphilis. Several children were attacked after heavy rainfall followed by a high cold wind. Dr. Simpson is of opinion that the disease is epidemic Cerebro-spinal Meningitis.
Chapelton	2	—	
Balaclava	1	—	
Gayle	1	—	
Falmouth	1	—	

	Cases.	Deaths.	Remarks.
Morant Bay	3	—	
Cave Valley	1	—	
Port Maria	27	17	Probably at least 50 cases as others took the stock medicines and were not seen by a medical man. A curious feature of the disease was that it occurred south of Port Maria, no case occurred on or near the coast. The outbreak ceased with the advent of the rains. With few exceptions the children attacked were poorly developed and badly nourished, living in houses without flooring and generally in poor circumstances.

The Registrar General has kindly given me a list of the number of deaths reported to him as having occurred from so-called vomiting sickness during the past year and this is attached below.

Number of deaths reported from Vomiting Sickness.

Kingston	—	Hanover	—
St. Andrew	23	Westmoreland	8
St. Thomas	1	St. Elizabeth	20
Portland	6	Manchester	14
St. Mary	29	Clarendon	49
St. Ann	5	St. Catherine	5
Trelawny	23		—
St. James	5		188

Little London.—A condition of general debility and bowel complaints were very prevalent after the hurricane, Colics, Diarrhœa, and Dysentery, Chest complaints and Rheumatism were also the result of the hurricane.

Grange Hill.—An extensive outbreak of Colitis was noticeable after the hurricane.

Santa Cruz.—Scarlet Fever was prevalent.

Balaclava.—Malaria has been more evident than usual during the last 4 months of the year due probably to the greater collections of water after the hurricane.

Mandeville.—Less Enteric than usual and a few cases of Scarlet Fever.

Newport.—4 cases of Phthisis were seen of which 3 have terminated fatally.

Christiana.—A few cases of Typhoid Fever.

Chapelton.—Mumps was very prevalent.

May Pen.—Billious remittent fever was prevalent throughout the year especially from October to January. Some Broncho-pnuemonia and Pleuro-pnuemonia, Diarrhœa and Dysentery were also common. Scarlet Fever, Measles and Chicken Pox also seen.

Crofts Hill.—Mumps prevalent during the Autumns.

Spanish Town.—13 cases of Phthisis Pulmonalis, 2 of Scarlet Fever.

Old Harbour.—5 cases of Typhoid Fever developed in the district after the arrival of two cases from Clarendon.

Port Royal.—1 case of Pellagra occurred in a female. Bronchitis was frequent among children in the cold and wet months.

LEPROSY.

The number of cases reported by the Medical Officers of the Department as known to exist in the various districts are as follows:

Lower St. Andrew.—2 cases of mixed leprosy are known of. Not isolated.

Morant Bay.—1 male and one female known of, the male cannot be located.

Plantain Garden River.—3 males, 1 female not isolated. Tubercular.

Port Maria.—2 males and one female said to be in the district.

Cave Valley.—23 cases—10 males and 13 females known of— 14 suffer from the tubercular variety and nine from the anaesthetic variety.

Falmouth.—1 male recently sent to Lepers Home.

Duncans.—3 males and 1 female known of.

Ulster Spring.—2 male lepers known of: the one at Sawyers has been convicted for exposing himself and is to be sent to the Lepers Home.

Montego Bay.—2 lepers, a male recently sent to the Asylum and a female (anaesthetic) still resident in the town.

Little London.—1 female known of, she has been in the Leper Asylum already, refuses to return and is not isolated.

Lucea.—1 case, Tubercular, known of—isolated and of the middle class.

Newport.—1 case known of—male said to be isolated.

Mandeville.—1 female (Tubercular) known of.

Christiana.—1 Leper recently sent to Leper Asylum.

Linstead.—2 known of in Linstead one is of the Tubercular variety and lives with his wife and children.

NEW LAW.

A consolidated Infective Diseases Notification Law was passed during the year (Law 31 of 1912.)

Paratyphoid Fever, Epidemic Cerebro Spinal Meningitis, Pulmonary Tuberculosis and Leprosy, which previously were not notifiable, were made notifiable diseases.

The law requires that all Medical Practitioners practising outside Kingston should report the Infective Diseases seen by them to the Local Boards of Health of the parish in which the disease exists, while in Kingston the notification has to be sent to the Medical Officer of Health. Law 22 of 1898 and Law 19 of 1899 were repealed.

GENERAL SANITATION.

Synopsis of Reports.

Where a medical officer is also health officer to a local board the letters H. O. are put after his name.

Port Royal—Dr. Neish states that:—

Waste water.—Is thrown into concrete drains, the sea and drainage wells—constant care is necessary on the part of the sanitary inspector to prevent the throwing of dirty water from the wash tubs into the yards.

Latrines.—The latrine system is a blot on the sanitary system of the town. Buckets are used and fæces and urine are voided in the same vessels. No earth is used to dry up and absorb the liquid urine in some instances ashes from the fireplace are thrown into the bucket and in some instances urine is collected in a separate bucket.

The buckets are only emptied every other day, and once a week they are not emptied before the expiration of 72 hours. Under these conditions there is no great wonder that fouling of soil takes place in many premises which seems to explain the prevalence of worms and general mal-nutrition of the majority of the infants and children who as soon as they can creep are turned out into the yard with the result that many of them eat dirt and become infected with worms.

Overcrowding.—Exists in many of the dwellings, in all cases the people state that they would like more room but cannot afford the higher rentals.

Mosquitoes.—Mosquito breeding is well kept down by constant and daily supervision.

Compounds.—As a whole fairly well kept.

Dr. Turton, D.P.H., Stony Hill, states that:—the disposal of waste matters is usually brought about by throwing it on the ground or into the undergrowth near the house.

Latrines.—A pit closet is rare, the commonest form is a small covered erection placed on more or less level ground and open at the back. In many cases no sanitary convenience exists at all, but people will use the same spot of ground day after day. This is without doubt the cause of the very great prevalence of ankylostomiasis in this district.

Drainage.—Is free—the land being mountainous, occasional swampy spots exists but not of any great size.

Overcrowding.—Is general and is aggravated by the bad habit of closing windows at night.

Compounds.—The condition leaves a good deal to be desired, cocoanut shells, tin pans, and much decaying vegetable matter is often seen—the strong sunlight saves much trouble—but after rain mosquitoes breed freely.

Mosquitoes.—There is a good deal of mosquito breeding—much of this is preventable, much is not easy to control such as goes on in the water collections in rocks, holes and trees. There is a sanitary inspector under the local board attached to the district.

Such conditions as the washing of clothes, horses and mules in the streams exists. Has not directly traced any disease to this habit, though the danger is obvious.

Sanitary Improvements.—None marked as far as can be seen.

Dr. Edwards, Lower St. Andrew, states that:—

Waste matter.—The ultimate disposal of waste matter is very inadequately and imperfectly carried out in most parts of the district.

Overcrowding.—The condition though still bad is improved.

Mosquitoes.—The breeding places are less numerous than formerly, but much remains to be done.

Sanitary Inspectors.—Have done efficient work but too limited in extent, owing he thinks to lack of funds.

Gordon Town—Dr. Sharp states that:— sanitary conditions on the whole good.

Latrines.—In Gordon Town consists of pits and buckets which are cleaned daily—the pits have dry earth thrown down into them.

Drainage.—Of villages good, due to their hilly state.

Overcrowding.—Almost every peasant's house is overcrowded—ventilation of houses appear to be a thing unknown. This is probably the cause of the spread of Pulmonary Tuberculosis.

Compounds.—The condition of the yards in Gordon Town could be improved.

Mosquitoes.—Breeding places do not exist to any great extent owing to the good drainage.

St. Davids—Dr. Clarke states that:—

Waste matter.—There is no special method for disposal of such matter—it is usually dumped into some unused portion of land away from the main dwellings.

Latrines.—Are of the earth system generally where there are any at all.

Drainage.—Is usually left to nature, being good in the mountains and unsatisfactory in the lowlands.

Overcrowding.—Is general.

Compounds.—Are kept fairly well.

Morant Bay—Dr. Bartlett states that:—the chief town although fairly healthy, leaves much to be desired in the way of sanitation. Browns Gully continues to be a nuisance and the post office gully requires to be cemented. The district of Church Corner owing to the proximity of the Johnston River with its side edies and sluggish arms is a prolific source of malaria—the street gutters in that locality also require attention.

There is a town cart system for the disposal of waste matter which works very well.

Latrines.—Are usually of the pit system.

Gutters.—A gradually extending system of open concrete gutters drains the town.

Compounds.—The conditions receive more attention than it did and is on the whole satisfactory.

Mosquitoes.—Much might be done to mitigate the breeding of mosquitos.

Sanitary improvements.—Not aware of any that have been carried out.

Plantain Garden River—Dr. Evans states that:—there are two factors affecting the public health that must strike the casual observer—first the almost entire absence of latrines in all the small towns and villages and next, the overcrowding which one finds in fully 75 per cent. of the houses of the peasantry.

Latrines.—A sufficient latrine could be put up by the ordinary labouring man in almost two days and very little of the same thatch and bamboos as he uses for his dwelling would be required for the purpose.

Over crowding.—Is a somewhat difficult problem to solve, as often, the people have neither the requisite money nor the land on which to build. There are several instances, however, in which one finds people with ample means and land living in a small two room cottage with ten or eleven others and this with every window and door closed.

Buff Bay—Dr. George states that:—

Latrines.—Pit closets exist in the better class houses—the banana fields are chiefly made use of by the poorer classes.

Drainage.—There are open concrete gutters in the village of Buff Bay.

Overcrowding.—Generally speaking it only exists in country parts, not in the villages.

Compounds.—The sanitary officer sees that these are kept clean.

Mosquitoes.—Measures have been taken to lessen the breeding places of mosquitoes—some breeding places have been filled up and some are oiled.

The Quaco river had had its bed concreted.

Richmond—Dr. Ritchie, H.O., states that:—

Latrines.—There is no regular latrine system, pit closets are chiefly used.

Drainage.—No regular system—the water drains off into streams.

Compounds.—The sanitary inspector makes regular visits and the yards and compounds are kept in fairly sanitary condition.

Mosquitoes.—No extensive mosquitoe breeding places in the village.

Port Maria—Dr. Lecesne, H.O., states that:—

Latrine system.—There are only about 25 per cent. pail closets in the town, the open closet being the system in vogue, not only in the poorer houses, but in the large offices, schools and better class houses also. The local board of health contemplates the adoption of the bucket system and this will doubtless be done as soon as a deposit ground is obtained.

Drainage.—Nearly all the streets in Port Maria town have concreted drains which are flushed daily but as most of the streets are above the level of the adjoining yards and as the greater portion of the town may be regarded as part of the catchment area of Warner's pond, surface drainage is bad and the compounds and yards around houses are sloppy and swampy after rain.

Oracabessa village is well drained natural conditions all helping.

Overcrowding.—Exists to some extent in Port Maria especially in the tenement houses and yards rooms and in the huts at Pagee and Mannings Town.

Mosquitoes.—The breeding places of these insects consist chiefly of logwood heaps (Stegomyia) and Warner's pond (Anopheles).

Re the latter, a determined effort is being made by filling and draining to rid the town of the pestilent swamp and the work done reflects great credit on the local board.

Sanitary improvements.—Many minor matters have been undertaken protecting water supplies, improving scavenging, the making of concrete drains, etc.

Gayle—Dr. Gideon, H.O., states that:—

Waste matter.—Banana fields are the dumping ground for every kind.

Latrines.—The pit and dry earth system are those chiefly in use—where these do not exist, the bush and banana fields are the substitutes.

Drainage.—Only that provided by nature.

Overcrowding.—There is too much overcrowding in many of the settlements.

Compounds.—Some improvement; the people are learning to appreciate the necessity for keeping their yards clean but there is room for improvement.

Mosquitoes.—Few breeding places but banana trenches and vessels not taken care of.

Sanitary improvements.—Protection of water supplies. Filling in of stagnant pools.

Moneague—Dr. Curphey states that:—

Latrines.—The closets most in use are level earth closets, some of the better class people in the village have pit closets. The police stations have the bucket system.

Waste matter.—There is no organised system of disposal of waste matter. There are dumps and manure heaps on some premises on which sweepings, paper, etc., are thrown.

Overcrowding.—Very little.

Compounds.—Kept fairly tidy.

Mosquitoes.—Few and anopheles rare.

Cave Valley—Dr. Hargreaves states that:—

Waste matter.—In Browns Town, the waste matter is carted away to vacant lots outside the town but in other villages the coffee walk near the dwelling, is used for its disposal and in these places there is no system of drainage other than the natural formation.

Overcrowding.—There has been a marked improvement in this condition, in many places he notices extra rooms added to accommodate the increase in families.

Mosquitoes.—There are many mosquito breeding places about Cave Valley; ponds and natural water holes, periodically filled by the overflowing river, and owing to formation of surrounding land they are very difficult, if at all possible, to drain.

He has put larvæ eating fish in these ponds but they are, unfortunately, washed out each time the river overflows.

Sanitation.—Improvements have been made in Browns Town, due largely to the constant vigilance of the medical officer of health. The concrete drains on the sides of the streets are always clean. The sanitary inspector visits the yards regularly and sees that the waste matter is removed—there is now a much needed supervision over food stuffs at the market and an effort is made to protect food from fly contamination.

The other villages are all more or less neglected as the medical officer of health cannot cover such a large area nor can one sanitary inspector either so that there is practically no supervision at all.

Dr. Purchas, Clark's Town, states that:—

Latrines.—The people whose houses have no latrines use the cane fields and pastures adjoining their villages. In some small hamlets this is almost the universal custom.

Mosquitoes.—The breeding is prevented by filling up water holes removal of penguins and undergrowth, covering up vessels containing water, putting fish in tank.

Disposal of waste matter.—Nil.

Overcrowding.—Present in considerable number of houses.

Compounds.—Up to the present always dirty and insanitary.

Dr. Campbell, Falmouth states:—That few residents have installed the Bucket system, the remainder still use the pit closets.

Waste matter.—Disposal of waste matter used in filling up swamp areas.

Drainage.—Practically all drainage is carried off by gutters at the side of the streets. There is not advantage taken of laying down concrete water tables, which could be established if care was taken to lay it down with the proper fall and level.

Overcrowding.—Exists considerably in the country parts of the district.

Compounds.—The condition of yards and compounds need cleaning and clearing up.

Mosquitoes.—Wherever mosquitoes are found to have breeding places the spot is either filled up or regularly oiled.

Dr. Smith, Ulster Spring states that:—

Latrines.—The latrine system is somewhat improved. It was necessary in some instances to insist on the construction of latrines where there were none. There is yet much to be done in that direction.

Dr. Thomson, D.M.O., Montego Bay states that:—

Sanitation.—The sanitary conditions of the towns and villages are not as bad as they used to be, but a great deal of improvement is needed in this respect.

The parochial authorities appear to be alive to the urgencies of the conditions at present prevailing but the main difficulty to rapid improvements seems to be the lack of funds.

Waste matter.—The waste matter of the town is either carried to the deposit ground or used in filling up the rock holes which abound on lands contiguous to the main roads leading to Falmouth. In this way mosquito breeding places are gradually being got rid of.

Latrines.—The latrine system of Montego Bay is not at all satisfactory. The majority of the latrines being of the pit system and a sure breeding place for flies. During the year a number of the old wells which had been filled up with rubbish for years were cleaned up, cemented over, made air tight and used as absorption pits, being attached to sanitary water closets. These have proved very satisfactory and in the absence of a proper sanitary sewerage system for the town people are being encouraged to use them. In the smaller villages the latrine system is the last thing to be thought of and generally consists of a small building open at the back so that fowls and pigs can get at the excrement and in this way prevent the place from "fouling."

Drainage.—By surface drainage.

Overcrowding.—In the town and in most of the peasant houses in the country there is a good deal of overcrowding.

Compounds.—Many of them are fairly clean, but a great deal has to be done in this direction.

Mosquitoes.—A good deal has been done to prevent the breeding of mosquitoes, rocky land is being gradually filled up and all pools of water got rid of or regularly oiled. But what has been done is only a drop in the ocean in respect of what is still left to be done. Funds are necessary.

Dr. Cooke, Lucea, states that:—

Waste matter—Is disposed of by filling in some lands around the town.

Latrines.—The latrine system is chiefly bucket system and one half of the yards have no latrines, the excrement in these cases being emptied into the sea, anywhere along the sea front. Proper latrines are being erected under the Bucket system.

Overcrowding.—Cannot say is an evil in Lucea.

Compounds.—Kept in clean and sanitary condition.

Mosquitoes.—Breeding places are filled in or drained.

Dr. Sinclair, Little London states that:—

Overcrowding.—Has become worse since the hurricane on account of the very limited accommodation in the small houses which have been erected in place of those blown down.

Mosquitoes.—Enjoy complete liberty to breed where they like and no steps are taken to destroy them.

The medical officer of health visits the district and does his best by advising the people to mitigate this evil, but he has no machinery wherewith to carry out his sanitary scheme.

Suffering due to hurricane.—The people have suffered a great deal from exposure to the weather which they underwent during the hurricane and for sometime after which they were houseless.

Dr. Harvey, Sav.-la-Mar, states that:—

Sanitation.—The condition of the villages with regard to sanitary matters may be said to remain what it has always been.

Waste matter.—I do not consider the disposal very satisfactory. For instance, the scrapings from streets and trenches are made into little heaps at the side of the concrete gutters where they remain until they are taken away by carts, and as there are only two carts provided by the parochial board for the purpose these heaps of refuse often have to remain for days where they were made or until a shower of rain washes them back into the concrete gutters to be scraped up again into heaps by the scavenger. When the cart does take away these refuse it is dumped in a swamp to the east of the town where possibly it may be fairly harmless.

Latrines.—The weakest point in the sanitation of Sav.-la-Mar lies in its latrines, which may be said to be upon the surface system, if there is such a system, at any rate the fæcal matter falls upon the surface of the ground under the seat of the privy, where there is free access to it from the outside; needless to say the dogs, flies and other creatures feed upon it. A good deal of this could be obviated by the parochial board insisting upon each privy having a supply of dry earth or ashes, the latter for preference, in it, and making the owner or proprietor responsible for the use of one or either in his own particular privy. Neither flies nor dogs could eat fæces that were covered with ashes, and every one in Sav.-la-Mar uses a wood fire so that ashes could be easily obtainable.

Drainage.—Is by surface drainage, some of concrete, some of earth.

Overcrowding.—Some of the houses in the slums are overcrowded.

Compounds.—The sanitary condition is better than it used to be.

Mosquitoes.—I am informed by the Health Officer that the pools in which mosquitoes are likely to breed are regularly oiled once a week.

Hurricane.—The past year was a pretty healthy one until the hurricane occurred. Since then the number of cases of malaria have enormously increased, and in addition to that there has been a serious outbreak of dysentery.

I am unable to give even approximate figures in connection with the number of persons affected or the deaths that have occurred during the outbreak. What I have said applies to the whole of my district, but cases of dysentery were more numerous in Sav.-la-Mar, Cave Valley and Bluefields districts than in any other portions of it.

In Sav.-la-Mar, the disease made its appearance immediately after the hurricane, and it has not by any means yet died out as cases keep cropping up day after day.

Dr. Sherlock, Bethel Town, states that:—

Waste matter.—Usually burnt.

Latrines.—Earth closet or bucket.

Overcrowding.—General.

Compounds.—Very dirty among the very poor classes.

Mosquitoes.—Very little breeding of mosquitoes.

Dr. Calder, Malvern, states that:—

Disposal of waste matter.—I am not aware that the Medical Officer of Health or Local Sanitary Department has made any arrangement in this direction.

Latrines.—The latrine system is that adopted by primitive man as a rule.

Drainage.—None.

Compounds.—As far as I can see the condition varies with the civilised condition of the inhabitants and the form of cultivation.

Mosquitoes.—I understand that the Medical Officer of Health is endeavouring to remove breeding places.

Sanitary improvements.—I am not aware of any.

Dr. Lofthouse, Balaclava, states that:—

Waste matter.—Is disposed of in the usual way, scattered over fields near by as manure.

Latrines.—The system chiefly in use is either the open closet or pit closets. Only one or two other places besides the Government Institutions use the bucket and dry earth system.

Drainage.—Surface drainage. But has not seen any waste water running into from any yard into the roads adjacent.

Overcrowding.—Exists as much as ever it did both in the villages and in the interior parts.

Compounds.—The compounds around the houses are much improved, but would like to see Laws brought into force in the district prohibiting the rearing and keeping of pigs within the village limits.

Mosquitoes.—In the lower parts of this district the swamps and morasses form splendid breeding places for mosquitoes. He tries as much as possible to induce the people to keep all their water vessels covered.

Sanitary Improvements.—He notes no sanitary improvements carried out during the year.

Dr. Cooke, H.O Mandeville, states that:—

Waste Matter.—The disposal of waste matter is chiefly by burning on the Race Course outside the town.

Latrine System.—Latrine system chiefly dry earth and bucket except the Market latrine which are flushed out by water and the contents carried to a sink hole of unknown depths.

Drainage.—Altogether surface drainage, except at the Mandeville Hotel where excellent sanitary improved have been introduced and all bath water and latrines contents are carried away by four inch pipes and deposited in a deep pit a considerable distance away from the main building.

Overcrowding.—There is no overcrowding except amongst the very poor peasantry.

Compounds.—The compounds fairly good but notices have frequently to be served.

Mosquitoes.—Very few mosquitoes are observed except at Porus and it is practically impossible to prevent them breeding there.

Dr. Farquharson, Christiana, states that:—

Latrines.—The usual country system.

Mosquitoes.—Very few.

Dr. A. W. Thomson, H.O. Chapelton, states that:—

Waste matter.—Refuse is either burnt or used to manure fields or removed to a deposit ground, where such is provided, or left to decay.

Latrines.—Where any latrine system exists it is in most cases of a primitive description. In Chapelton and Frankfield besides the Government Institutions some residences are provided with the bucket system.

Drainage.—In Chapelton and Frankfield the natural drainage which is good is assisted by concrete drains laid by the Parochial Authority and the Public Works Department.

Overcrowding.—There is no reason to suppose that overcrowding exists to any great extent.

Compounds.—Very slowly some improvement is being secured in the conditions of premises in Chapelton, Frankfield and Rock River.

Mosquitoes.—Except in pines at Frankfield, shallow pools form in the water when it is specially low as was the case last year on account of the drought.

Sanitary Improvements.—The laying of concrete drains along the main street of Chapelton by the

Public Works Department in connection with two large culverts constitutes the most noteworthy sanitary improvement.

At Frankfield the removal of the Market Place from the road to a convenient shed improves matters.

Dr. Earle, H.O. May Pen, states that:—

Waste matter.—In May Pen the waste matter is removed by the Parochial Board in a cart bi-weekly. Nothing is done in this respect at Four Paths.

Latrines.—The system in May Pen is of two kinds:—(a) Buckets emptied when necessary; (b) Earth closets which are cleaned out occasionally when foul.

Drainage.—In both towns the drainage is entirely on the surface. In parts where the surface is flat water collects in stagnant ponds and puddles and remains there until it evaporates.

Overcrowding.—Does not think there is any undue overcrowding anywhere now since the work on the Chapelton Railway is finished.

Compounds.—The condition of the compounds was on the whole much improved during the last 12 months, is not by any means perfect. There is still much to be done and I hope that during the coming year fresh strides will be made in this direction.

Mosquitoes.—No steps of any importance have yet been taken by the Local Board of Health to eradicate the breeding places of mosquitoes. Has frequently reported upon this subject but nothing has yet been done to tackle this matter seriously.

Almshouse.—The sanitary condition of the Almshouse has been very much improved during the year, especially as regards latrines and drains. A cement drain is being conducted along the bed of the gully adjacent to the main road, to carry away the waste water and refuse from the Almshouse.

Streets.—The streets of the town during the past year have been kept clean by contract being swept twice a week and the refuse from the streets and compounds removed bi-weekly, to a dumping ground. There is very great improvement in this respect to what existed formerly.

Dr. Cassidy, Lionel Town, states that.—

Compounds.—The sanitary conditions of the houses and compounds is not satisfactory.

Waste matter.—Waste matter in most instances is deposited in yards or in neighbouring cultivation.

Latrines.—Are not much used and in most cases where any exist are badly constructed. In many the night soil is simply deposited on the ground and no attempt is made to dig a pit or provide a bucket.

Overcrowding.—Is general and no doubt constitutes very largely to the spread of Pulmonary Tuberculosis.

Mosquitoes.—The drought of the past 2 years has reduced the number of mosquitoes very considerably. Potential breeding places exist all over the district.

The rivers passing through the district tend to form pools as they are rather stagnant. Behind the village of the Alley there are several large pools which no doubt accounts for the unhealthiness of the village.

Dr. Strudwick, H.O. Crofts Hill, states that:—

Waste matter.—Is disposed of on the lands adjoining the yards of the houses.

Latrines.—Earth closets are used where a closet is used at all.

Drainage.—Natural surface drainage occurs to a large extent, the district being so hilly.

Overcrowding.—A great deal of overcrowding exists in the houses of the peasantry.

Compounds.—Are on the whole kept clean.

Mosquitoes.—The breeding of mosquitoes has not called for any marked attention. No special methods have been taken to remove breeding places.

Sanitary Improvements.—The most notable have been in the direction of improving and maintaining the Bake-houses in proper order and clean and sanitary condition around houses.

Dr. Peck, Spanish Town, states that:—

Waste matter.—Is collected in carts and dumped in the Deposit ground.

Latrines.—The system is principally pit closets, but several public buildings have dry earth latrines in use. The Public Hospital and Prison Hospital have water carriage system. One private dwelling and the Jamaica Government Railway have Sanitary closets with absorption pits, the Rio Cobre Hotel has a Septic tank.

Drainage.—Surface drainage is general.

Overcrowding.—There is undoubtedly overcrowding of tenement houses and attention ought to be paid to the proper lime washing of the living rooms.

Compounds.—The compounds and yards around houses is receiving careful attention from the Sanitary Inspector, and a great deal has to be done in preventing householders from wasting water in allowing it to run to waste.

Mosquitoes.—The Sanitary Inspector visits breeding places of mosquitoes and taken measures to remove them.

Dr. Simpson, Old Harbour, states that:—

Waste matter.—Is collected in carts and used to fill up insanitary depressions where required.

Latrines.—The latrine system is a mixture of cess pit, water closet and earth closet. They are regularly inspected and cleaned the contents being buried outside the limits of the town.

Drainage.—Surface drainage is effected by means of concrete gutters.

Overcrowding.—Is probably universal. Its evil effects are minimised by the healthy open air lives of the people, the abundance of sunshine and the low rainfall.

Compounds.—Compounds around houses are regularly inspected and steps taken to abate any insanitary conditions.

Mosquitoes.—Owing to low rainfall and general defective water supply there cannot be said to be any definite mosquito breeding places within the boundaries of the town.

Crude petroleum is kept by the Sanitary Inspector and applied by him to pools or collections of water requiring treatment, under my direction.

Dr. Clark, Linstead, states that:—

Sanitation.—The town of Linstead is still in a backward sanitary condition

Mosquitoes.—There are several large ponds in the town forming immense breeding places for mosquitoes.

Drainage.—Many of the streets are badly drained and pools and stagnant water collect in them.

Latrines.—The pit system of latrines is chiefly in vogue, much more cleaning is necessary. The odours at night, in passing some of them is almost overpowering.

I append an interesting Report in full.

Kingston, 20th April, 1913.

SIR,

I have the honour to forward the following report on the health conditions of the Kingston Medical district for the financial year ended 31st March, 1913.

1. The health of the district during the year was on the whole good. There was no epidemic of any kind, nor was there any special or abnormal prevalence of any disease.

The weather was almost continuously dry throughout the twelve months—the total rainfall was 16″ 84 pts. of which 10″ 68 pts. occurred in November, the balance being distributed amongst the other eleven months, September and October registering 1.58 and 1.87 respectively.

Both the sick list and the mortality rate went up simultaneously with the appearance of the rains and the death-rate for December 1912 and January 1913 reached a figure exceeding that of any month during the preceding two years. Damp weather invariably has this effect in Kingston, and this is in my opinion entirely attributable to the poor clothing and improper housing of the poorer classes of the community. They live under the same conditions in wet weather as they do in dry with the inevitable result. A good deal of the sickness that occurred in the dry months was traceable directly to the terrible clouds of dust which almost continuously enveloped the city during the very severe and prolonged drought of the greater part of 1912.

At one time the water supply was barely sufficient for the needs of the city and locking off of the water at certain hours of the day and at night had to be resorted to, causing much inconvenience to the citizens, and but for the recently introduced supply from the Ferry River, there would have been a water famine, a state of things which in a city like Kingston would have been deplorable.

At one time fears were entertained in certain quarters of disease appearing as the result of the consumption of impure water, the Ferry River water presenting at the time a dirty brownish appearance, but a satisfactory analysis relieved the anxieties on this score. No sickness beyond the usual seasonal ailments was met with at any period of the year.

(2) The sanitary conditions prevailing in Kingston are as good as can be reasonably expected, having regard to the fact that the city is now in a transition stage, between the old and modern methods as to the disposal of refuse, but these conditions will never be entirely satisfactory until the sewage system is extended and completed. The pit closet system apart from being a nuisance, is a menace to the Public Health and should be superseded at the earliest possible date.

(a) The city is supplied from 3 sources—the Wag Water, the Hope River and the Ferry River, the last being used in dry weather when the two former are restricted—the water in each instance passes through filterbeds of sand and is of unexceptionable character.

(b) Waste matter is dumped on land to the west of the town.

(c) *Latrine System.*—Partially by the water carriage system and partially the pit closets.

(d) *Drainage.*—Surface and underground.

(e) *Overcrowding.*—There is a considerable amount of overcrowding in houses in Kingston particularly to the west of the city—about Smiths village and Hannah's Town—This is responsible for a good deal of sickness and misery.

(f) *Compounds.*—The compounds and yards around houses are in fair order and are being improved under the supervision of the sanitary Department of the Municipality.

(g) *Mosquitoes.*—The breeding places of mosquitoes are being gradually eradicated from the city, success in this direction being indicated by the marked diminution of Malaria. The filling up of swamps to the east and west and the energetice measures of the city Sanitary Department combined with the operations of the Malaria Commission, have secured very gratifying results.

(h) The sources of the water supplies of Kingston are fairly free from pollution. The water sheds of the Hope River may not be entirely free from suspicion, but the thorough filtration to which the water is subjected in the filter beds of the Kingston General Commissioners, eliminates as a rule all possible risks.

(i) Sanitary improvements have been and are being made from time to time. Concrete side drains to the streets and lanes in the city and suburbs are being laid down, and the sewage system is being gradually extended by the making of new connections; more attention is being paid to the keeping down of rank vegetation, and on the whole there has been a distinct advance in the year under review. The dust nuisance however seems to baffle the efforts of the authorities so far.

3. The mortality rate varied as usual with the seasons. During and immediately after the rains the mortality was highest. Thus while in August it was 23.32 per 1,000, in November it went up to 33.38 in December to 42.71 and in January 44.99. The chilly damp nights of these months, I think contributed to the death rate by their lowering effects on the aged and on the very young.

4. As regards meteorological conditions the year was one of almost incessant dry weather, accompanied by intense heat and dust—with the exception of the dust the conditions were rather favourable than otherwise to the Public Health.

5. There was a considerable outbreak of Scarlet Fever during the second quarter of the year. Scarlet Fever is not a disease that usually attacks Kingston, and it does not appear to have a favourable habitat here. The cases met with were, for the most part of a mild type and the infectivity not very pronounced. The epidemic, if it may be so termed, had quite died out before the close of the year as far as I know.

While I am unable to give the exact number of cases of Enteric Fever that occurred in the district during the year, the Registrar General's figures bring out the disquieting fact that while the number of deaths from Enteric Fever in 1911-12 was 67, in 1912-13 it was 84. Against this however it may be stated that while "Undistinguished Fever" (many of them most probably Enteric) accounted for 42 deaths in 1911-12, only 29 were recorded under this head in 1912-13. This practically equalizes matters or at all events presents the statistics of the year now under review in a less favourable light—still when all is said and done it must be admitted that there is too much Typhoid Fever in Kingston. Of Phthisis it need only be said that it still maintains its bad pre-eminence as being the most fatal affection in the district.

No cases of so-called Vomiting sickness came under my observation during life, but I performed Post Mortem examinations on three children supposed to have died of the disease. In each instance there were marked signs of Meningitis.

Cases of Measles and Mumps were met with from time to time during the year, but these do not call for special comment. No case of Diphtheria came under my notice, nor am I aware of any.

6. The juvenile population is fairly well protected from smallpox, but the same cannot be said of those more advanced in life, in the absence of re-vaccination—1,408 vaccinations were performed by the D.M.O. during the year and a number of others were done by the various private practitioners of the city.

7. Yaws cannot be said to exist in this city—I saw three cases during the year, all coming from elsewhere—as a consequence the necessity for invoking the operation of Law 23 of 1910 did not arise.

8. There are no means at my disposal for ascertaining the incidence of Hookworm disease in this district. I did not meet with any during the year,

9. No register is kept of the lepers in this district.

Dysentery has not been prevalent in the district, Colitis, however, was frequently met with, among adults as well as young children.

I have, etc.,

Sgd. Lawson Gifford,
D.M.O.

The following returns present in a concise form the work done in the Public General Hospitals outside Kingston for the year under review. The Hospitals continue to afford relief to those members of the population who, in the absence of such Institutions could scarcely secure medical aid in times of severe sickness owing to want of means wherewith to obtain it and also to their inability to provide themselves with proper food and attendance during their illness.

The most prevalent diseases are as below:

1. Malaria as has often been the case has the largest total to its account, the number being 8,466. The number of patients admitted suffering from the intermittent type of the disease registering a total of 8,086 cases with 49 deaths or a death rate of .607.

2. *Skin Diseases* run second with a total of 3,614 cases and 10 deaths. Many of these diseases are due to Hookworm infection while others are due to particular forms of skin trouble contracted in the canefields. If these cases are not admitted to hospital early they become aggravated necessitating a much longer residence in hospital later on.

3. *Injuries* account for 2,037 cases with 47 deaths.

4. *Diseases of the Digestive System* account for 2,010 cases and 100 deaths or a death rate of 4.975.

5. Hookworm disease and Infection account for 1,594 cases and 168 deaths or a death rate of 15.394. This disease is now being taken in hand in a way that never used to be the case.

6. Rheumatism has a total of 1,194 cases and no deaths—a very good record.

7. Yaws totals 456 and no deaths.

8. Enteric Fever shows 222 cases of Typhoid Fever with 82 deaths or a death rate of 36.936 and 66 cases of Paratyphoid fever with 8 deaths or a death rate of 12.121.

9. Pulmonary Tuberculosis shows 97 cases and 38 deaths.

10. Dysentery which was very prevalent during the year in many parts of the Island shows 162 cases of the Bacillary variety with 17 deaths a death rate of 19.944 and 159 cases of the Amoebic variety with 17 deaths and a death rate of 10.691.

Emetine is now used as a routine treatment in the latter class of case.

11. Neuritis accounts for 93 cases and 4 deaths, or a death rate of 4.301.

12. Syphilis has the large total of 628 cases and 11 deaths.

It is reported that many of the emigrants to Colon and Costa Rico return from those places with a very severe form of Syphilis.

This they doubtless spread.

Unfortunately our Poor houses are to a large extent filled with patients who have been victims of this disease.

I have the honour to be,
Sir,
Your obedient servant,
J. Errington Ker, S.M.O.

The Hon.
The Colonial Secretary,
Kingston.

Summary of Diseases treated in the various Hospitals of Jamaica for the year 1912-13.

General Diseases.	Cases.	Deaths.
Chicken Pox	1	
Measles	9	
Mumps	9	
Influenza	4	
Enteric Fever—		
(a) Typhoid	322	82
(b) Para-Typhoid	66	8
Dysentery	321	34
Malarial Fever—		
(a) Intermittent	8,068	49
(b) Remittent	353	21
(c) Pernicious	45	10
Pyæmia	2	
Septicæmia	19	8
Tetanus	17	10
Tubercular	113	39
Leprosy (a) Tubercular	3	
Yaws	456	
Chancroids	7	
Syphilis—		
(a) Primary	262	1
(b) Secondary	154	3
(c) Tertiary	159	3
(d) Inherited	53	4
Gonorrhœa	316	
Alcoholism	3	
Delirium Tremens	1	
Rheumatism	1,194	
Rheumatic Fever	1	
New Growth—		
(a) Non-malignant	56	1
(b) Malignant	58	6
Anæmia	195	11
Diabetes mellitus	2	
Debility	62	6
Beri-Beri	1	
Mal-nutrition	1	1
Vomiting Sickness	15	3
Marasmus	1	
Old Age	4	1
LOCAL DISEASES—		
(1) Diseases of the Nervous system—		
Neuritis	93	4
Meningitis	12	11
Myelitis	2	
Anterior Poliomyelitis	1	
Locomotor Ataxia	2	
Congestion of Barin	8	
(2) Functional Nervous Disorders—		
Apoplexy	11	1
Paralysis	20	
Eclampsia	4	
Cephalalgia	29	
Epilepsy	25	
Neuralgia	119	
Hysteria	19	
Vertigo	1	
General Diseases	Cases.	Deaths
(3) Mental Diseases—		
Idiocy	1	
Mania	8	1
Melancholia	2	
Dementia	2	
Delusional Insanity	1	
Diseases of the Eye	326	
Ear	78	2
Nose	15	
Diseases of the Circulatory System	172	27
Respiratory	672	56
Digestive	2,010	100
Lymphatic	216	
Urinary	378	52
Generative		
(a) Male organs	434	8
(b) Female organs	306	8
Organs of Locomotion	389	8
Cellular tissues	696	4
Skin	3,614	10
Connective tissue	81	1
Cons. on Pregnancy	18	1
Pregnancy	16	
Diseases of the bones	2	
Ulcers	71	
Neglect	—	1
Abortion	1	
General Injuries	102	14
Local injuries	1,935	33
Malformations	5	
Poisons	6	1
Parasites—Infection by		
(1) Ankylostoma Duodenale	704	8
(2) Ascaris Lumbricoides	58	
(3) Filarial Diseases	4	
(4) Pediculosis	3	
(5) Ringworm	7	
(6) Itch	179	
Any other variety	198	2
No Diseases	1,762	2
Inanition	1	1
Hookworm Disease	890	8
Total number of cases	28,062	
Total number of Deaths	665	
Death rate %	2.369	

Summary of Surgical Operations, 1912-13.

Surgical Operations.	Cases.	Deaths
Abscess, Incision of	500	3
Abdominal Operation for	24	5
1. Laparotomy		
2. Volvulus of Sigmoid	6	3
3. Cœsarian Section	2	1
4. Paracentesis Abdominis	4	
5. Hysterectomy	9	
6. Appendectomy	2	
7. Oophorectomy	1	
8. Ectopic Gestation	2	
Aneurysm—Ligature of Artery	5	
Amputations—		
Foot	9	1
Leg (below knee)	3	
Thigh	39	2
Digits	73	
Penis	13	
Toe	14	
Forearm	15	
Arm	1	
Hand	3	
Breast	8	
Bladder and Urethra—		
Stricture—dilation of	166	1
Internal Urethrotomy	3	
External Urethrotomy	10	
Perineal Section	15	2
Perineal Abscess	3	
Retention of Urine for	21	
Extravasation " "	1	
Lithotomy	1	
Bones—		
Caries	3	
Necrosis	12	
Osteotomy	4	
Sequestrotomy	10	
Eye—		
For Pterygium	3	
Scraping Meibomian Cyst	1	
Removal of part of Conjunctiva	2	
Ectropion	1	
Hypopyon	1	
Removal of Pus from Anterion Chamber	1	
Needling Cataract	2	
Extirpation of Globe	27	
Extraction of Cataract with Iridictomy	1	
Hypopyon Keratitis	2	
Hess operation for Plephroptosis	1	
Foreign bodies removed from—		
Ear	6	
Foot	9	
Nose	3	
Jaw	1	
Eye	2	
Hand	1	
Throat	4	
Finger	1	
Face	1	
Chest	1	
Head	1	
Face, Nose, Mouth, etc.—		
Polypus removed (nose)	2	
Hareclip	1	
Tracheotomy	1	
Tonsils removed	54	
Joints—Reduction of	4	
Arthrotomy	11	1
Paracentesis	1	
Excision	2	
Arthrectomy	1	
Lymphatic Glands—		
Excision of	65	
Scraping and Cauterizing	3	
Hernia—		
Reduction of	1	
Radical cure for	25	
Herniotomy for Strangulation	17	2
Fractures—		
Simple and Compound	145	
Male Generative Organs for—		
Paraphimosis	16	
Castration	1	
Hydrocele Radical Cure	2	
Hydrocele tapping	56	
Circumcision	112	
Chancroids—Cautery	28	
Scrotum, slitting up	2	
Warts, cauterizing	2	
Female Generative Organs for—		
Curetting	49	
Ulcer Uterus cauterizing	1	
Removal of part of Labia	1	
Placenta Prævia	1	
Delivery by Craniotomy	1	1
Dilating Cervix	1	
Atresia Vaginæ	4	
Cervix amputation	1	
Uterine polypus removed	1	
Hysteropexy	5	
Rectum and Anus for—		
Fistula in Ano	10	
Hæmorrhoids	23	
Hæmorrhoids removed	2	
Recto Vaginal Fistula	1	
Nails removed	73	
Dislocations—		
Elbow	1	
Shoulder	4	
Knee joint	1	1
Hip	1	
Jaw	4	
Incision for—		
Cellulitis and Carbuncle	39	1
Trephining—		
Mastoid cells	2	1
Skull	2	
Tendons—		
Suturing wounds	77	
Tenotomy	4	
Tumours and Cysts—		
Carcinoma	18	
for Bursal tumour	3	
Adenoids	9	
Hæmatoma Cephal	1	
Fibroma	10	
Lipoma	3	
Polypus of Labia	1	
Keloids	1	
Urethral Caruncle	1	
Meibomian Cyst	1	
Sebaceous Cyst	1	
Examination under Chloroform	17	

Summary of Surgical Operations, 1212-13.

Surgical Operations.	Cases.	Deaths.
Ulcers—		
Scraping and cauterizing	84	
Extraction of Teeth	381	
Slitting up Sinus	41	
Papilloma ..	1	
Veins—Excision	1	
Exploratory Incision	7	
Extraction of Bullet	1	
Wounds Suturing	2	
Cervix, Dilatation of	3	
Excision of Keloids (both ears) ..	1	
Removal of Macerated Fœtus from Uterus	1	
Instrumental delivery	1	
Pubic Cystotomy	4	
Anastomos's Intestinal	2	
Uvula—Removal of	2	

Surgical Operations.	Cases.	Deaths
Enterotomy ..	3	
Cystotomy ..	1	
Rib resection for Empyema	2	
Depressed Fracture skull (for) ..	2	
Paracentesis—		
Abdominis	23	
Thoracis ..		
Knee ..	4	
Chest ..	1	
Total number of cases	2,552	
Total number of deaths	25	
Death rate %	.1979	

Annual Report on the work of the Bacteriological Department, April 1st 1912,—*March* 31*st* 1913.

The Pathological Laboratory, April 1,1913

The Honourable,
The Superintending Medical Officer.

Sir,

I have the honour to forward the following report upon the work performed at the Pathological Laboratory during the past year.

The appended tabular statement indicates the enormous number of specimens which have been dealt with and the varieties of the investigations undertaken.

The staff consists of the Government Bacteriologist (acting also as Pathologist to the Kingston General Hospital), an Assistant, Mr. S. M. Dailey, who has been of very great help in carrying out much of the routine work of the laboratory, such as preparation of various media, cutting of sections, etc; and lastly there is a cleaner.

Various reports have been issued during the year of which the following are the most important:—

1. Detailed report to the Right Honourable the Secretary of State on work done at the laboratory during the period September 1911—March 1912.
2. Ditto for the period March—September 1912.
3. Paper on "Widal's reaction as an aid in prognosis of Enteric Fever," based on a study of 1,500 consecutive reactions. This has been sent to the British Medical Journal.
4. Examination of Rats in connection with Plague investigation.
5. Report on the Franklin Town outbreak of hyperacute cerebro-spinal meningitis.
6. Report on cases of Vomiting Sickness at Porus, December 1912.
7. Further report on the Porus epidemic, January 1913.
8. Cases of cerebro-spinal meningitis, indicating the similarity between the symptom-complex of that disease and some cases of Vomiting Sickness.
9. Deep suppuration associated with a new bacillus—bacillus serofaciens; published in the Journal of Tropical Medicine and Hygiene.
10. Hyperacute cerebro-spinal meningitis in Jamaica. Sent to the 'Annals of Tropical Medicine."

In addition to these there have been various minor reports, including, for example, 116 water reports.

Scientific details of the various investigations would be of little or no interest to the generality of those who receive this report. They will, therefore, be omitted. Full details have been given in the biannual reports sent to the Secretary of State for the Tropical Research Committee. Matters of general interest only need here be stated. The most important of these are:—

I. Enteric Fever. II. Ankylostomiasis. III. Plague Investigation. IV. Vomiting Sickness.

Other matters of which short mention may be made are:—

1. Cases in which the bacillus serofaciens was found. 2. Dysentery. 3. Vaccines.

I. *Enteric Fever*;.—Under this heading are included cases whose serum reacts to the B. Paratyphosus A as well as those reacting with B. Typhosus. The difference is largely a scientific one, since in Jamaica the clinical features, the course, the treatment, and the complications are practically identical. The paratyphoid fever out here is not by any means the comparatively mild or uncommon affection that it appears to be in some colonies. Though less frequently met with than the true Typhosus infection, the disease caused thereby (or more correctly, associated therewith)—may be every bit as serious as true typhoid fever, a point upon which too little stress is often laid.

Of the many subdivisions of the paper on Widal's reaction (No. 3 above) one may be of general interest, namely, that dealing with positive typhoid blood reactions in apparently healthy subjects. It was shown that such may occur in three classes of cases:—

i. As a residual reaction after a previous attack; cases were quoted in which this was noticed three years and eight years after the illness, and in the case of a "carrier" twenty-two years after.

ii. In a person who is "carrying" the bacillus. If he has had a definite attack of typhoid fever and subsequently becomes a carrier, this would be included under the last, but occasionally a carrier is found without any history of a previous attack being obtained, or of anything which can be reasonably construed as such.

iii. In persons who are apparently in excellent health, who are not excreting the bacilli, and who, as subsequent events prove, are not in the incubation stage of enteric fever.

Accurate histories amongst a native population are always matters of difficulty, but excluding those who give an account of fever (often called "Malaria") extending over several days, which might possibly have been enteric, I have examined the blood from 228 subjects and have found either with bacillus typhosus or bacillus paratyphosus, a positive result in 37 or 16.6 per cent.; or, if quite low dilutions be also taken into consideration (such as 1.10 and 1.20) as many as 57 (25%).

At the General Penitentiary in Kingston no man is permitted to be employed in the kitchens unless his blood has first been tested by the Widal reaction, and it is an astonishing fact that out of the 84 so examined 11 or 13 % gave a positive reaction with B. Typhosus, while 16 or 19% reacted positively with B. Paratyphosus; omitting those which gave reactions in low dilution only, fourteen yielded positive results i.e., 16.6 per cent, of which six, or 7.1 per cent. were with B. Typhosus, and eight, or 9.5 per cent. with B. Paratyphosus.

Any whose blood gave a positive result was then further examined in order to ascertain whether he was excreting the bacilli; the above figures exclude all carriers.

At other institutions where examinations were undertaken of the blood of the "apparently healthy":

At the Police Depot, Spanish Town, out of 47 subjects, four gave a positive reaction with each bacillus, i.e., 8.9% with bacillus typhosus, and the same with the bacillus paratyphosus, a total of 17.8 per cent.

Many, both of those at the depot and of those at the Penitentiary, had very likely suffered at some time from the disease, but particularly at the latter, the history was undoubtedly in many cases uncertain.

Among nurses on duty at the Public General Hospital, out of 51 whose blood was examined, five (or 9.8%) gave a positive with B. Typhosus, and three (or 5.9%) with B. Paratyphosus.

Apart from these, 39 sera were examined from those who at the time of investigation were in good health, but who had suffered from "prolonged fever," many probably enteric, during the previous 5 years, but none less than one year earlier. Of these, twenty or 51% gave a positive reaction with B. Typhosus and six or 15.4% with B. Paratyphosus.

It would obviously give an entirely erroneous impression if these latter were included amongst the "apparently healthy" who gave no history of any previous prolonged illness. It is interesting also to note that only three of those whose sera were examined and which gave a positive reaction were definite "contacts" of recent cases.

Finally, in this connection, one case is particularly worthy of note:—

A child of nine months suffered from an attack of typhoid fever, proved by isolation of the bacillus. The question next arose as to the method by which the child could have become infected. The patient's mother was the nurse in charge of the enteric ward at a general hospital in the island, and it was thought that she might possibly have taken some milk or other food from the ward home to the child. A specimen of the mother's blood was asked for and it was found to give a very marked agglutination of bacillus typhosus in high dilution.

The nurse was perfectly certain that she had never suffered from Typhoid Fever, or, in fact, prolonged fever of any kind; she had always been healthy and "never remembered being ill in her life" (to quote her own words). The next step was the examination of her excreta; the bacillus typhosus was isolated from the urine. In short, this nurse was definitely a "carrier," though never having herself suffered from the disease, and she seems without doubt to have conveyed the disease to her child.

It would have been be interesting to examine her milk (for she was suckling the baby) in order to see whether the bacillus could be isolated from it, but, apart from the difficulty of discovering the organism, the inference that this was the mode of infection in this instance would not hold good, even if it were found, when the more ready method of transference to the outside of the breast by the fingers could not be excluded.

During the year under review 1,125 specimens of blood have been examined by Widal's serum reaction; of this number 655 gave a positive reaction with one or other organism; of the positive results 419, or 63.97 per cent., reacted with B. Typhosus, while 209, or 31.9 per cent., reacted with B. Paratyphosus, and 27 or 4.13 per cent., were cases of double infection.

II. Ankylostomiasis.—I believe that a special report on this question has been sent in, so that it will suffice for me to state that 897 specimens have been sent up to the laboratory for examination, and of these 702 revealed the presence of the ova of the parasite, *i.e.*, they were found in 78.2 per cent., and in the majority they did not exist alone, but in association with both Ascaris Lumbricoides and Trichocephalus Dispar.

It was formerly believed that the condition was largely limited to, or at all events was much more common in, the coolies, but as a matter of fact, judging from the specimens sent to the laboratory, the West Indian is very often infected also, though the Ascaris is rather more common in him. For a period of six months I kept records of both, and the result worked out to this: of specimens sent from East Indians 89.5 per cent. contained the ova, while the West Indians 61.5 per cent. were affected.

The condition is much more common than has been generally believed. The Hon. the Superintending Medical Officer has from time to time directed that a certain number of specimens from different estates were to be sent up weekly for examination, and in some districts, where there was believed to be little or no infection by these parasites, over 90% of the specimens forwarded revealed their presence and in many instances in large numbers.

The question is an important one in this island since it leads to a considerable degree of incapacitation among estate labourers. With the introduction of a place of detention for treating all immigrating coolies whence they can be sent to various parts of the island after being cleared of these parasites, the amount of infection must indubitably be lessened, though the soil around the habitations of the earlier arrivals, who have not been so treated, must be highly infected.

III. Plague Investigations.—Another matter of interest which happily did not become serious is that of Plague. So far as the facts apply to Jamaica they may be briefly stated as follows:

At the beginning of July, 1912, word was received of the outbreak of plague in Havanna, at which place a Jamaican vessel had stopped shortly before, and had then returned and made a tour of the island. On July 12th, at a meeting of the Quarantine Board, the decision was arrived at of having this ship thoroughly disinfected, and all rats caught were brought to the laboratory. Sixty-seven were found and on dissection nine of these were suspicious; smears and cultures were made of the various organs, etc., of these two yielded very typical colonies; subsidiary tests were made which need not be detailed here, except to say that cutaneous inoculation into guinea-pigs caused the death of these animals, and from them again the bacillus was recovered.

The notification was fortunately received before the ship was starting to make another tour of the island; "fortunate" because these two rats would undoubtedly have infected others and thus might have spread the disease at each port stopped at.

Since that time rewards have been given for rats caught on the wharves and elsewhere, and 1,050 of these have been examined at the laboratory, but from none of these has the bacillus pestis been isolated.

IV. Vomiting Sickness.—A detailed account of the work in connection with this disease so far as I personally have been concerned, without encroaching in any way upon the work done by Dr. Harald Seidelin, has been sent in to the Secretary of State, and short histories of each of the 183 cases seen and investigated by me, or reported to me for examination of specimens and so forth, are also given in that report. These details, laborious and of scientific interest only at present, will not be given here. Still less is this necessary because four brief communications have already been presented on this same subject. Dr. Seidelin came out at the beginning of January, 1913, to study the disease, and as it was not possible for one person to carry out all the work of morbid anatomy and bacteriology in connection with the many cases which have occurred, and also because Dr. Seidelin had frequently to be absent from the laboratory in order to see the patients in the inland districts, he did me the honour of asking me to carry out the bacteriological part of the investigations. This, of course, I was only too happy to do, the understanding being that in the cases which he himself had seen I informed him of the results of the cultivations, and mentioned beforehand what steps I proposed to take, in order that they might have his approval, and that in those cases my investigations might be undertaken definitely under his directions. Such cases amounted to 39 out of my total of 183. Without mentioning details of individual cases, the characters of the whole series may be summarised under the following heads:

1. Age incidence of all cases reported as Vomiting Sickness.
2. Sex influence.
3. Average duration of disease in cases ending fatally.
4. Proportion of cases in whom a Gram-Claudius-negative diplococcus was obtained from the cerebro-spinal fluid and cultivated.

1. With regard to the age incidence the following table (Table I) shows that of 183 cases 104 or 56.8% occurred under the age of 5 years, while of the 52 cases in which the diplococcus was isolated from the cerebro-spinal fluid 30 or 53.8% were from children below the age of 5 years.

2. Sex influence. This point is not of much importance in a condition such as Vomiting Sickness, which is undoubtedly not a single clinical entity, but taking all cases reported to me this year the difference is not marked. Thus, of the total 183, 99 or 54.1% were males while 84 or 45.9% were females. Under 5 years of age, though there are differences shown for individual years, the total works out at 52 of each.

Sex, therefore, from the data at hand, apparently has little or no influence.

3. Average duration of illness in fatal cases.—The average duration of all the hyperacute cases, that is omitting those who lived longer than 3 days, (only four did so) comes out at 14½ hours in females and the same in males, the shortest in either sex was half an hour between the first observed symptom and death. Two such occurred amongst female children and one amongst the males.

4. Proportion of cases from whom a Gram or Claudius-negative diplococcus was obtained from the cerebro-spinal fluid and cultivated. Out of the total 183 this was isolated from 52 or 28.4%; it must be stated that in twelve other instances primary smears or primary cultures showed an organism morphologically similar, but subculture failed and isolation could not be carried out. As there is in these no confirmatory evidence, they can only be spoken of as probably or possibly belonging to the same category.

In conclusion it will be, I think, advantageous to summarise my views on this important question. Dr. Seidelin has not communicated his opinions to me, so I cannot say to what degree they are in harmony with my own, at the same time it is well to place my ideas on record, as it will be interesting to see, when his report is published, to what extent his findings corroborate or differ from mine.

The question relative to hyperacute cases of Cerebro-spinal meningitis resembling in many of the details the symptom-complex of vomiting sickness may be summarised thus:

1. In several cases of illness of sudden onset in apparently healthy subjects terminating fatally in a high percentage of those attacked, I have isolated a Gram-negative diplococcus from the spinal fluid.
2. This organism gives the morphological and cultural characters of the meningococcus, except that in Galactose it does not always give a definite reaction, the medium in some instances not being affected. The maltose and dextrose however are always typically acted upon.

3. These cases exhibit in many instances a symptom-complex which has for years been spoken on in Jamaica as the Vomiting Sickness.

4. The disease breaks out in localised epidemic form in various parts of the island every cold weather, that is, from about the middle of December to the middle or end of March.

5. The disease occurs at other times as sporadic cases, but does not appear to spread extensively.

6. It is a curious thing that practically all the cases are of the hyperacute variety, either recovering in a few days or dying in a few hours. One rarely sees the sub-acute cases during the epidemic times and never, so far as I am aware, the chronic ones, unless some of those one meets who are chronically deaf, or have seriously defective vision, or who suffer from fits, are instances of cerebro-spinal meningitis with permanent sequelae. Of this there is no proof.

7. In three instances a spirochaete-like body has been seen in the smears made directly from the fluid obtained by lumbar puncture. What part, if any, this takes in producing the symptoms I have not been able to determine.

8. The disease is very rare amongst the white population; I have only known of three instances so far during the past year. Possibly this is due in part to better hygienic conditions, less crowding, and so forth, but not entirely, because

9. I have not met with the condition once during that period among the East Indian population (though a diplococcus was seen in the primary smears but did not grow on subcultivation in two cases, so these cannot be regarded as more than probable or possible instances) where overcrowding and bad hygiene are nearly, if not quite, as marked as amongst the West Indian natives. For this also I am unable to offer any explanation; it must not be forgotten, however, that the East Indian certainly has better food than the West.

10. The facts related enable one to say that in a certain proportion of cases exhibiting the symptom-complex of vomiting sickness wholly or in part, the meningococcus is present, but it does not prove that this is the only cause at work. One is not justified in stating more than this; that, after exclusion of such conditions as worms, gastro-enteritis, marasmus, food-poisoning, etc., there is a large residue of cases, some of which are due to the meningococcus or a very closely allied organism, often alone, but at times probably in combination with some other organism, while there still remains a large percentage of cases yet unaccounted for.

Briefly, then, to the question "What connection is there, if any, between Vomiting Sickness and hyperacute Cerebro-spinal Meningitis?" the reply may, in my opinion, be stated thus:

1. Clinically some cases reported as vomiting sickness are associated with the meningococcus or a closely allied organism.

2. Thorough examination will usually enable distinct clinical differences to be established. Many of the severe cases of vomiting sickness show no retraction of the head, no Kernig's sign, no general tenderness, no fever, no eruption, and so on.

3. The post mortem findings reveal in many cases little or nothing abnormal in the brain and spinal cord or their meninges.

So that, though cases of meningitis occur amongst those reported as Vomiting Sickness, the two diseases are not, I believe, identical. After the former have been excluded, a large proportion still remains unaccounted for, so far as actual knowledge of the cause goes at present.

Without encroaching on what Dr. Seidelin may have to report, for, as already stated, he has naturally not revealed his opinions to me, I may finally state, merely as a surmise which I put forward tentatively, and which future investigations, I am well aware, may not fully endorse, the following:

1. That the condition (apart from true meningitis cases) is one of acute toxaemia, possibly a septicaemia, the poison, whatever its nature, bacterial or otherwise, tending to produce hæmorrhages in various organs, with fatty degeneration in many cases, sometimes associated with Gram- (or Claudius) negative diplococci in the spinal fluid, giving somewhat variable sugar reactions, but more often not associated with the presence of such an organism.

2. That, if it is due to an organism, it is one which will not grow on the ordinary culture media employed, Agar, Nasgar, Haemoglobin or blood-agar, under aerobic conditions, for in many instances, clinically typical, the culture tubes remain sterile.

3. That, since the gastric symptoms are in nearly all cases the primary ones, and the convulsions and coma are secondary in time, one would be inclined to infer that the upper part of the digestive tract is first affected at all events in those who complain of "pain in the stomach," and that absorption may take place there and affect the cerebral and nervous system by way of the blood stream.

On the other hand, epigastric pain is not complained of by all, and in these the main "point d'appui" of the poison may be the cerebral centres, the vomiting being of cerebral origin equally with the convulsions and coma.

The macroscopic post-mortem appearances in the few cases which I have personally seen (apart from those in which the meningococcus-like organism has been found and the brain and cord and their membranes are the only parts to show morbid changes) support the view that the toxin, whatever its nature, becomes rapidly diffused through the entire body, and affects all the organs, thoracic and abdominal viscera, lymphatic glands, etc. Of the microscopic changes in the various organs I say nothing; this part of the work will doubtless be detailed by Dr. Seidelin in his report. As stated at the outset my time has been fully taken up with the bacterial aspect of the disease and with a few autopsies on patients who died in the Kingston General Hospital. The morbid anatomy has been particularly studied by Dr. Seidelin, who only interested himself in the microbiological results in cases actually coming under his own personal notice, with two or three exceptions.

V. Remaining subjects of which brief mention may be made:

1. Cases in which the Bacillus Serofaciens has been found. I have met with five more cases in which this organism has been isolated. The organism itself was described in my last report; a paper upon it was published in the Journal of Tropical Medicine and Hygiene last year, and the question was also referred to by the editors of the Bacteriological Review (Oct.) the Bulletin de l' Institut Pasteur (Jan.) and the Archiv für Schiffs-und Tropen krankheiten

(Jan.) It has been suggested that the condition was in reality a filarial abscess, but against this are the following important facts:

i. Abscess apparently does not arise till after incision and secondary infection.

ii. I have searched for but have failed to find any filariae or signs of them.

iii. The bacillus mentioned was found in every case in the general blood stream and in the fluid of the part affected in pure culture; in the former always, and in the latter at first.

iv. When suppuration does not take place the bacillus is recoverable from the fluid or the blood stream so long as the temperature remains elevated; when it falls to normal the organism is no longer found in the blood, and rapidly disappears from the local condition as the latter clears up.

In all five cases there was the same intense swelling of the thigh associated with very little pain, and that of a burning sensation (though movement at times elicited considerable pain), a temperature ranging from 99°-101°F., rarely higher. The swelling in each case gave fluctuation and consequently incisions were made, but, with one exception, no pus was found, merely an extensive collection of serous fluid, from which the organism grew abundantly. The bacillus did not in any instance disappear from the blood until the temperature had reached normal to stay there. Two other cases have been reported to me from inland districts in which the upper arm and shoulder were affected.

2. Dysentery. Cases of Colitis and Dysentery have occurred in various parts of the island, but particularly in a certain district where the inhabitants used as a laundry the stream from which they obtained their drinking water. This water on analysis was, as would be expected, very polluted, there being some 40,000 blood-heat organisms developing per cc in 48 hours. Several of the cases in this part terminated fatally. Among dysenteric cases both the amœbic and bacillary forms occurred. Of the latter the majority were due to the Flexner organism, but from three the Shiga bacillus was isolated. This, I believe, is rare in the West Indies.

3. Vaccine Therapy. This is taking a strong hold amongst practitioners all over the island. Apart form Stock vaccines, 117 autogenous ones have been prepared, and in almost every instance the reports upon their results have been favourable, and in the majority remarkably so. Details of these have been given in former reports and need not be repeated here.

In three cases of Lupus, two of which were very extensive, Tuberculin, starting with quite small doses and increasing gradually at short intervals, has given astonishingly good results.

Appended hereto are the following Tables:—

I-IV.—Relating to facts mentioned under the section dealing with Vomiting Sickness.

V.—A tabular statement showing the number of specimens dealt with month by month at the laboratory.

This is the only laboratory in Jamaica where pathological and bacteriological investigations can be performed, and not only are all the usual clinical pathological examinations, such as are necessarily required in connection with a large General Hospital, undertaken here, but also medical men all over the island—those in private practice, those in the medical service as District Medical Officers, and those engaged in public health work—are availing themselves to an ever-increasing extent of the help which is offered to them in diagnosis and treatment by the opportunities thus afforded of sending up material for examination at the laboratory.

I have the honour to be,

Sir,

Your obedient servant,

H. Harold Scott, M.D., London.
Government Bacteriologist and Pathologist
to the Kingston General Hospital.

Table I.—Showing the ages of all patients reported as cases of Vomiting Sickness. Of the total number of cases 120 or 65.57% occurred in children below the age of six years.

Under 1 year	6
Between 1 and 2 years	19
“ 2 “ 3 “	29
“ 3 “ 4 “	32
“ 4 “ 5 “	18
“ 5 “ 6 “	16
“ 6 “ 7 “	8
“ 7 “ 8 “	8
“ 8 “ 9 “	8
“ 9 “ 10 “ “ ..	5
“ 10 “ 11 “	5
“ 11 “ 12 “	7
“ 12 “ 13 “	3
“ 13 “ 14 “	1
“ 14 “ 15 “	—
“ 15 “ 16 “	1
“ 16 “ 17 “	—
“ 17 “ 18 “	—
“ 18 “ 19 “	1
“ 19 “ 20 “	2
“ 20 “ 30 “	6
“ 30 “ 40 “	3
“ 40 “ 50 “	—
“ 50 “ 60 “	1
Adults—age not stated	4
Total	183

Table II.—Showing the number of cases in which a Gram-negative Diplococcus was isolated from the Cerebro-spinal fluid.

Under 1 year	5
Between 1 and 2 years	6
“ 2 “ 3 “	4
“ 3 “ 4 “	8
“ 4 “ 5 “	5
“ 5 “ 6 “	5
“ 6 “ 7 “	2
“ 7 “ 8 “	5
“ 8 “ 9 “	2
“ 9 “ 10 “	1
“ 10 “ 11 “	1
“ 11 “ 12 “	2
“ 12 “ 13 “	1
“ 13 “ 14 “	1
“ 14 “ 15 “	—
“ 15 “ 16 “	1
“ 16 “ 17 “	—
“ 17 “ 18 “	—
“ 18 “ 19 “	1
“ 19 “ 20 “	1
“ 20 “ 30 “	1
“ 30 “ 40 “	1
“ 40 “ 50 “	—
“ 50 “ 60 “	—
Adults—Age not stated	1
Total	52

Table III.—Showing the influence of Sex on the incidence of cases of Vomiting Sickness. Below the age of 5 years there were 52 of each sex.

Ages.	Males.	Females.
Under 1 year	1	5
Between 1 and 2 years	12	7
“ 2 “ 3 “	12	17
“ 3 “ 4 “	14	18
“ 4 “ 5 “	13	5
“ 5 “ 6 “	9	7
“ 6 “ 7 “	3	5
“ 7 “ 8 “	5	3
“ 8 “ 9 “	2	6
“ 9 “ 10 “	1	4
“ 10 “ 11 ..	2	3
“ 11 “ 12 “	5	2
“ 12 “ 13 “	2	1
“ 13 “ 14 “	—	1
“ 14 “ 15 “	—	—
“ 15 “ 16 “	—	1
“ 16 “ 17 “	—	—
“ 17 “ 18 “	—	—
“ 18 “ 19 “	—	1
“ 19 “ 20 “	1	1
“ 20 “ 30 “	—	6
“ 30 “ 40 “	—	3
“ 40 “ 50 “	—	—
“ 50 “ 60 “	—	1
“Adults” age not stated	2	2
Total ..	84	99

Table IV.—Showing the duration of illness in the ordinary acute case of Vomiting Sickness. Prolonged cases, lasting over 3 days, are not reckoned; there was one of 3½ days, two of 4 days, and one of 2-3 weeks. (speaking generally, neither age nor sex influences the duration of illness).

Ages.	Males.	Females.
Under 1 year ..	1	19
Between 1 and 2 years	12½	9½
“ 2 “ 3 “	5	7½
“ 3 “ 4 “	9	11½
“ 4 “ 5 “	15½	7
“ 5 “ 6 “	16	14
“ 6 “ 7 “	20	9
“ 7 “ 8 “	11	15½
“ 8 “ 9 “	19	18
“ 9 “ 10 “	14	17
“ 10 “ 11 “	40	25
“ 11 “ 12 “	—	—
“ 12 “ 13 “	11	7½
“ 13 “ 14 “	—	—
“ 14 “ 15 “	—	—
“ 15 “ 16 “	—	12
“ 16 “ 17 “	—	—
“ 17 “ 18 “	—	—
“ 18 “ 19 “	—	—
“ 19 “ 20 “	—	24
“ 20 “ 30 “	—	21½
“ 30 “ 40 “	—	—
“ 40 “ 50 “	—	—
“ 50 “ 60 “	—	—
“Adults” age not stated	—	—
Average	hours 14½	hours 14½

Table V.—Showing the specimens dealt with during the year April 1st, 1912—March 31st, 1912.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Total.
Widal examinations ..	76	129	80	108	74	97	135	110	94	97	73	52	1,125
Blood for Malaria ..	92	93	134	72	43	53	85	90	88	104	102	52	1,008
Fæces for parasites, Typhoid, Dysentery ..	9	62	118	108	38	36	59	80	106	234	170	84	1,104
Urines ..	28	22	20	49	30	27	21	19	19	16	15	32	298
Pus ..	33	28	16	26	10	8	18	15	11	10	9	9	193
Sputa ..	30	20	18	27	8	16	22	21	21	23	19	4	229
Water, samples analysed ..	1	6	12	18	9	6	14	6	11	12	11	10	116
Tissues sectioned ..	13	7	4	11	8	16	11	..	14	1	2	10	97
Rats dissected ..	..	..	..	166	467	331	149	1	2	1	..	..	1,117
Vaccines prepared ..	16	8	15	16	6	5	11	5	15	5	11	4	117
Vomiting sickness investigations ..	..	..	..	..	..	..	..	..	70	81	89	101	341
Miscellaneous: Exudates, Transudates, Blood cultures, Gastric contents, etc. ..	36	34	35	38	32	20	38	44	59	76	21	16	449
Total ..	334	409	452	639	725	615	563	391	510	660	522	374	6,194

PUBLIC HOSPITAL.

Report for the year ended 31st March, 1913.

July, 1913.

Sir,

I have the honour to forward the Annual Report of the Public Hospital, Kingston for the year 1912-1913.

During the latter part of the year the new kitchen, bathroom, latrines, dirty linen room and bedpan room in connection with Edward Ward were commenced as also the new Junior staff latrines and those for the screened rooms.

Unfortunately, owing to the hurricane the same necessities, although provided on the Estimates, for William and Underbuilding Wards had to be left over for a future year owing to the financial depression following the hurricane.

An upper story was also added to the Senior Resident's House.

I have the honour to be,
Sir,
Your obedient Servant,
J. E. Ker, Suptg. Medical Officer.

The Honourable
The Colonial Secretary,
Kingston.

Public Hospital, Kingston, June 24th, 1913.

Sir,

I have the honour to place before you the Annual Report of the Medical and Surgical cases treated in this Institution during the year ending March 31st, 1913.

Table I.

Shows the number of patients treated in Hospital during the year under review, with results. The total being 3148, of this number 219 remained in Hospital at the close of the year. There were 462 deaths for the year.

The daily average number of beds occupied was 217. The number of applicants who applied for admission to the Hospital but who were rejected for want of accommodation or for other reasons was 5357 as compared with 8,042 in the previous year.

All these people were prescribed for and if considered necessary were admitted subsequently to Hospital or were referred to the Inspector of Poor.

Table II.

Gives the average stay in days of patients in Hospital.

Table III.

Gives the number of deaths occurring within 12, 24, 48 and 72 hours after admission. These cases were admitted in practically a moribund condition, little or nothing could be done for them. The total number of deaths during the above mentioned periods was 135. The death rate was 13.86%.

Table IV.

Gives the number of Medical cases treated during the year with results: the most noteworthy were:—

(a) *Malarial Fever.*—The number of cases treated under this heading was 175 with 4 deaths as compared with 293 cases treated in the previous year with 16 deaths.

Tubercle.—Under this heading 86 cases were treated, of this number 2 were cases of General Tuberculosis, both cases terminated fatally. Of the 84 cases of Pulmonary Tuberculosis treated, 24 died in Hospital.

Enteric Fever.—Under this heading 179 cases were treated and the deaths numbered 63 as compared with 133 cases treated in the previous year, 45 of which terminated fatally. During the month of May 33 cases were admitted. Many of the fatal cases were of the Ambulatory type, in most of these perforation occurred.

Venereal Diseases.—The subjoined table shows the number of cases treated during the year in Hospital.

Syphilis.	Cases.	Deaths.
Primary	5	1
Secondary	8	2
Tertiary	17	3
Congenital	11	8
Gonorrhœa and Sequela	175	6
Chancroid	41	1

Colitis.—There was a tremendous outbreak of this disease, after the prolonged drought last year which was followed by very heavy rains in November— and the admissions under this heading continued to be very numerous up to the end of the financial year.

The total number admitted for the year was 225 cases, 52 of these cases proved fatal—a great number of the cases admitted were in a critical condition.

Acute Enteritis.—Under this heading 113 cases were admitted, 41 cases proved fatal.

Amœbic Dysentery.—There were 13 admissions under this heading, 1 case proved fatal.

TABLES VI, VII, VIII.

Give returns of countries, parishes, occupations of patients admitted to Hospital during the year under review.

TABLE IX.

Shows the number of prescriptions dispensed for the outpatients, the Constabulary and Maternity Hospital.

The number of casualties treated during the year was 8,688 as compared with 7,519.

The number of dressings done in the Outpatient Dept. was 18.022.

Miss Whittingham, the Matron has held classes for the Senior and Junior Nurses and two examinations have been held. The results have been satisfactory. The papers were set by me and the oral examinations were given by Drs. Ross and Thomson. Dr. Scott has been of much assistance to the staff in verifying diagnosis, etc.

The thanks of the Hospital are due to the many kind friends who have generously contributed to the Annual treat at Xmas to the patients and Nurses.

Gifts of Magazines and Illustrated papers have been regularly supplied to the patients and have been much appreciated.

I have, etc.,

C. W. M. CASTLE, S.M.O

Hon. S. M. O.,
Kingston.

TABLE I.

	Males.	Females.	Total.
Patients remaining in hospital April 1st 1912	121	98	219
Patients admitted during the year 1912-13	1,735	1,464	3,199
Total patients treated	1,856	1,562	3,418
Of these were cured	1,214	1,002	2,216
Of these were relieved	195	130	325
Of these were not relieved	102	93	195
Of these died	227	235	462
Remaining in hospital March 31, 1913	118	102	220
	1,856	1,562	3,418

Death rate, 13.86%.

TABLE II.

Daily average number of beds occupied by male patients	118
Daily average number of beds occupied by female patents	99
Average stay in days of those who died—males	13
Average stay in days of those who died—females	14.2
Average stay in days of males discharged	29.73
Average stay in days of females discharged	26.7
Average stay in days of males remaining at the end of the year	25.3
Average stay in days of females remaining at the end of the year	20.6
Longest stay of any one patient in hospital	363

TABLE III.

Patients who have died within the following hours after admission.

Hours.	12	24	48	72	Total
Males	13	19	18	18	68
Females	13	22	18	14	67
	26	41	36	32	135

TABLE IV.

Public Hospital, Kingston—Model

DISEASE.	April.		May.		June		July.		August.		September.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Enteric Fever	13	7	33	10	19	2	11	2	11	3	16	7
(Enteric Fever)—												
Dysentery	1	1	2	..	..	..	..	..	1	..	..	..
Pneumonia	2	2	1	..	2	2	3	3	2	1	2	..
Influenza	..	..	..	..	..	..	..	..	1	..	..	..
Malarial Fever—												
(a) Tertian	7	..	11	..	4	..	8	..	10	..	6	1
(b) Subtertian	..	..	..	..	..	..	..	..	1	..	3	1
Tetanus	..	..	2	2	1	..	1	1	..	..	..	..
Pellagra	2	..	3	..	1	1	..	..	..	..	..	..
Malarial Cachexia	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..
Septicæmia	..	..	1	..	1	..	..	..	..	..	..	..
Tuberculosis—												
(a) General	..	..	..	..	..	..	1	1	..	..	..	..
(b) Pulmonary	9	1	8	3	5	3	7	4	4	..	9	1
Syphilis—												
(a) Primary	1	..	1	..	2	1	..	..	..	..	..	..
(b) Secondary	..	..	..	..	..	..	1	1	..	..	1	..
(c) Tertiary	..	..	3	1	3	1	1	1	..	..	2	..
(d) Congenital	2	2	3	3	1	..	..	..	1	1	..	..
Gonorrhœa and Sequela	15	2	16	..	22	1	18	..	20	..	11	1
Chancroid	4	..	7	..	1	..	4	..	5	..	2	..
Alcoholism	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism—												
Acute	1	..	7	..	2	..	5	..	6	..	..	..
Sub-acute	..	..	4	..	2	..	1	..	..	..	..	..
New Growth—												
Malignant	3	..	2	..	5	..		1	3	..	1	..
Non-malignant	5	..	3	..	2	1	3	3	3	..	4	..
Anæmia	..	..	..	..	1	..	..	..	4	..	5	1
Debility	1	..	1	..	1	..	1	..	2	..	..	..
Appendicitis	2	..	3	..	2	..	2	..	4	..	..	..
Scarlet Fever	..	..	2	..	..	..	1	..	1	..	..	..
Beri-Beri	..	..	..	..	..	..	..	..	..	..	..	..
	68	15	113	19	77	12	73	17	79	5	62	11
Local Diseases—												
Nervous System—												
Brain and Apoplexy	6	3	4	1	3	2	2	2	2	1	6	4
Nerves and Neuritis	4	1	9	..	9	1	3	..	2	..	2	..
Spinal Cord and Myelitis	..	..	1	..	..	..	..	..	..	..	..	..
Epilepsy	1	..	2	1	..	..	1	1	2	..	2	2
Neuralgia	1	..	..	..	1	..	2	..	..	..	..	..
Paralysis	1	..	..	..	..	..	..	..	..	..	..	..
Hysteria	..	..	1	..	1	..	2	..	1	..	..	..
Mental Diseases—												
Mania	..	..	..	..	..	..	..	..	..	..	..	..
Dementia	..	..	..	..	..	..	..	..	..	..	..	..
Melancholia	..	..	..	..	..	..	..	..	..	..	..	..
Disease of—												
Eye	1	..	5	..	3	..	8	..	5	..	6	..
Ear	1	..	..	..	..	..	..	..	..	..	1	..
Nose	2	..	..	..	..	..	..	..	..	..	1	..
Circulatory system	16	2	1	..	16	4	4	2	8	2	7	2
Respiratory system	12	..	22	..	16	2	16	2	10	..	15	..
Digestive system	25	7	43	8	37	5	45	6	43	7	48	7
Lymphatic system	8	1	..	..	6	..	..	..	1	..	9	1
Urinary system	1	..	10	4	..	..	14	5	7	..	7	2
Generative Organs—												
Male organs	3	..	26	..	15	..	4	..	1	..	7	..
Female organs	6	2	4	2	15	2	10	1	20	2	7	2
Cellular tissue	..	..	22	3	16	3	14	2	25	3	18	3
Skin	10	1	5	..	..	..	..	..	13	3	9	1
Bones and Joints	2	..	6	..	..	..	2	..	2	..	9	..
	100	17	161	19	138	20	127	21	142	18	154	24
Local injuries	34	4	25	3	39	3	39	2	12	..	31	2
Malformation	..	..	..	..	..	..	..	..	..	..	..	..
Poisons	..	..	..	..	1	1	..	..	1	1	..	..
Parasites	..	..	..	..	3	..	..	..	..	..	..	..
No disease	12	..	..	..	5	..	..	..	..	..	5	..
	46	4	25	3	48	4	39	2	13	1	36	2

TABLE IV.

Report—Nosological Return 1912-13.

October.		November.		December.		January.		February.		March.		Total.		Remaining
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths	
17	8	18	6	14	9	12	3	12	3	3	3	179	63	14
2	..	1	..	4	2	2	..	..	..	..	..	13	1	4
3	..	1	..	5	2	2	..	4	3	4	4	31	71	3
1	..	4	..	19	..	7	..	1	..	..	..	33	..	..
15	..	16	..	14	..	19	..	11	..	4	1	125	2	3
6	..	3	..	4	..	16	..	17	2	..	..	50	2	..
..	..	..	..	..	..	..	..	..	..	..	..	4	3	1
..	..	1	..	..	..	1	..	..	..	..	..	8	1	4
..	..	1	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	1	..	..	..	..	1	1	..	..	..	..	4	2	..
1	1	..	..	..	..	..	..	..	..	..	..	2	2	..
10	3	6	..	8	..	7	3	8	5	3	1	84	24	2
..	..	..	..	..	..	..	..	..	..	..	..	4	1	..
..	..	..	..	..	..	..	..	4	1	..	..	6	2	..
..	..	..	..	4	..	4	..	..	..	..	.	17	3	5
3	1	..	..	1	1	..	..	..	..	..	..	11	8	..
9	1	16	1	13	..	13	..	19	..	3	..	175	6	8
2	..	6	1	5	..	4	..	4	..	1	..	45	1	5
..	..	..	..	..	..	..	..	..	..	..	..	.. ..	..	..
3	..	3	..	..	..	6	..	6	..	2	..	41	..	4
..	..	1	..	4	..	1	..	2	..	..	..	15	..	4
4	..	4	..	..	..	1	..	1	..	1	..	30	1	3
6	..	5	1	7	..	..	..	..	..	..	..	38	5	5
5	1	..	..	..	..	2	..	3	..	1	..	21	2	1
..	..	..	..	2	..	7	..	..	..	..	..	15	..	..
3	..	..	..	..	..	..	..	1	..	1	..	18	..	1
1	..	..	..	1	..	..	..	..	..	..	..	6	..	..
1	..	..	..	..	..	2	..	..	..	..	..	3	..	3
93	16	86	9	105	14	107	7	93	14	23	8	979	146	70
3	1	..	..	2	..	9	3	2	..	5	4	44	22	3
5	2	8	..	4	2	5	1	9	3	6	2	66	10	2
1	..	..	..	..	..	..	..	..	..	..	..	2	..	..
3	1	..	..	2	1	..	..	1	..	2	..	16	6	..
..	..	1	..	..	..	..	..	..	..	..	..	5	..	..
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
1	..	..	..	..	..	..	..	..	..	..	..	6	..	..
..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	..	2	..	3	1	4	..	6	..	1	..	48	..	13
..	..	..	..	..	..	1	..	..	..	..	..	3	..	..
..	..	..	..	1	..	..	..	..	..	..	..	3	..	..
3	..	5	..	17	4	7	3	1	1	1	1	86	21	9
7	..	14	..	9	3	12	..	10	1	10	1	153	9	..
63	10	64	18	63	20	79	18	66	17	47	27	623	150	47
4	..	9	3	4	..	4	..	5	..	1	..	51	5	3
10	3	7	1	6	3	3	..	3	2	3	2	71	22	..
4	..	7	..	2	..	..	..	1	..	1	..	71	..	..
17	..	10	..	16	1	13	..	9	2	5	1	132	15	13
16	2	9	1	14	3	10	2	1	..	2	..	147	22	13
8	1	5	..	7	..	16	2	10	2	4	..	87	10	22
7	1	8	..	4	..	4	..	8	..	2	..	54	..	18
155	21	159	23	155	38	167	29	132	28	89	38	1,660	292	143
33	1	13	..	19	1	21	..	25	2	6	1	297	19	5
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	..	..	..	..	..	2	2	..
1	..	1	1	..	..	2	1	..	..	1	1	8	3	1
1	..	1	..	5	..	1	..	2	..	..	..	32	..	1
35	1	15	1	24	1	24	1	27	2	7	2	340	24	7

TABLE V.

List of patients operated on in Kingston Hospital, 1912-1913.

Operations.	Cases.	Deaths.
Abscesses—Incisions of	83	..
Abdominal—Abscesses abdominal wall incision of	5	1
Laparatomy for—		
Appendectomy	7	..
Exploration	6	..
Gastro-jejunostomy	4	..
Ovariotomy	1	..
Fibro-Myoma Uterus	4	3
Hysterectomy	11	..
Oophorectomy	1	..
Estopic-Gestation	1	..
Intestinal obstructions	1	..
General Septic Peritonitis	1	1
Pyo-Salpynx	2	1
Amputation of—		
Foot (Symes)	1	..
Leg	12	1
Penis	1	..
Toe	5	..
Finger	7	..
Breast	11	1
Arm	2	..
Hand	1	..
Bladder and Urethra—		
Stricture, dilation of	51	..
Cock's Perineal Section	12	6
Urethral Caruncle Cauterizing	3	..
Washing out Bladder	1	..
Bones—		
Necrosis	13	2
Sequestrotomy	2	1
Trephining Skull	2	..
Excision of horizontal radius of lower jaw	1	..
Resection of rib	1	..
Tumours, removal of—		
Arm	1	..
Leg	1	..
Neck	1	..
Breast	2	..
Scalp	1	..
Shoulder	1	..
Cystic	7	..
Carcinoma—		
Recurrent of breast	1	..
Opening Ganglion	1	..
Scraping Ulcers	9	..
Scraping Carbuncle	4	1
Cyst Dermoid	1	..
Female Generative Organs—		
Curetting	58	..
Hysteropexy	1	..
Recto Vagina Fistula, repair of	1	1
Cervix Uteri, amputation of	2	..
Vesico Vaginal Fistula	4	..
Removal of Vulva	1	..

Operations.	Cases.	Deaths.
Male Generative Organs—		
Circumcision	57	..
Radical cure for Hydrocele	1	..
Removal of Testicles	2	..
Supra-pubic—Prostectomy	4	2
Paraphymosis	1	..
Eye—		
Excision of	16	..
Extract of Cataract cum Iridectomy	3	..
Extract of Catatact sine Iridectomy	3	..
Incisions—		
Exploratory	3	..
Cellulitis	1	..
Hæmatoma	1	..
Rectum and Anus—		
Hæmorrhoid Ligaturing	24	..
Hæmorrhoid Cauterizing	2	..
Rectal Examination	1	..
Dilation of Rectal Stricture	3	..
Reduction of dislocated elbow	1	..
Reduction of dislocated wrist	1	..
Reduction of dislocated hip	1	..
Reduction of dislocated shoulders	2	..
Adenoids, removal of	14	..
Tonsils, removal of	3	..
Epithlioma Lip	1	..
Radical cure for Inguinal Hernia	29	3
Excisions of—		
Inguinal Glands	56	..
Cervical Glands	8	..
Thyroid Glands	1	..
Axillary Glands	1	..
Removal of foreign bodies from chest wall	1	..
Removal of foreign bodies from leg	2	..
Removal of malignant growth from forehead	1	..
Removal of stitches	1	..
Removal of ingrowing toe-nails	23	..
Scraping Sinuses	3	..
Slitting Sinuses	3	..
Suturing Tendons	1	..
Tenotomy	1	..
Ligaturing external Iliac Artery	2	..
Ligaturing Femoral Artery	2	1
Stretching Sciatic Nerve	1	..
Injecting Sciatic Nerve	2	..
Stitching crushed hand	1	..
Breaking down adhesions of knee	2	..
Examination under Chloroform	10	..
Minor operations	381	..
Total	1,027	25

Total number of cases 1,027
Total number of deaths 25
Death rate per cent.—2.41

Table VI— Countries.

Africa	2	Germany	18	Russia	1
America	4	Grand Cayman	2	Scotland	3
Antigua	1	Greece	1	St. Lucia	1
Barbados	13	Hayti	3	St. Thomas	1
China	20	Hungary	1	Sweden	1
Colombia	7	Inagua	1	Syria	3
Colon	4	India	70	Trinidad	1
Cuba	3	Ireland	2	Turks Island	1
Demerara	2	Italy	1		
Denmark	3	Jamaica	2,994		
England	17	Nassau	3		
France	4	Norway	8	Total	3,199
Fortune Island	1	Nova Scotia	2		

Table VII—Parishes.

Kingston	2,177	St. Ann	1	St. Catherine	35
Port Royal	17	St. James	1	Trelawny	1
St. Andrew	836	Westmoreland	2	Seamen	60
St. Thomas	13	St. Elizabeth	7		
Portland	18	Manchester	4	Total	3,199
St. Mary	19	Clarendon	8		

Table VIII—Occupations.

Accountants	2	Foremen	1	Produce dealers	1
Apprentices	7	Gardeners	21	Reporters	1
Bailiffs	1	Goldsmiths	3	Saddlers	4
Bakers	28	Greasers	1	Sailmakers	1
Barbers	2	Grooms	11	Sawyers	1
Blacksmiths	10	Hatmakers	6	Seamen	35
Boatmen	3	Headmen	2	Seamstresses	151
Boilermakers	1	Higglers	68	Servants	377
Bookbinders	2	Housecleaners	4	Schoolmasters	14
Brakemen	6	Interpreters	1	Shipwrights	3
Bricklayers	19	Jockeys	8	Shoemakers	24
Busmen	8	Labourers	485	Shopkeepers	29
Butchers	11	Laundresses	280	Shopservers	5
Butlers	15	Machinist	6	Solicitors	1
Cabinetmakers	2	Masons	8	Stewards	5
Cakesellers	5	Mechanics	8	Stevedores	1
Carpenters	62	Merchants	1	Storekeepers	2
Cartmen	13	Messengers	8	Storemen	15
Chauffeurs	6	Midwives	1	Surgeon	1
Cigarmakers	18	Miners	1	Tailors	17
Clerks	35	Missionaries	1	Tinsmiths	2
Coachbuilders	1	Motormen	3	Tobacconists	1
Coachmen	28	Moulders	1	Trimmers	2
Conductors	5	None	681	Upholsterers	1
Cooks	47	Nurses	60	Vendors (News)	1
Coopers	3	Overseers	2	Warders	3
Constables	229	Painters	20	Watchmen	2
Contractors	2	Peddlers	15	Wheelwrights	4
Dispensers	1	Photographers	1		
Draymen	9	Planters	121		
Electricians	7	Pulmbers	2		
Engineers	15	Porters	7	Total	3,199
Firemen	25	Postmistresses	1		
Fishermen	18	Potters	3		
Fitters	4	Printers	3		

Table IX.

No. of Outpatients who attended with tickets from Inspector of Poor	602
No. of prescriptions made up for above	6,967
No. of casualty patients without tickets, treated	8,688
No. of prescriptions made up for them	12,019
No. of prescriptions made up for Constabulary	1,475
No. of minor surgical operations performed in the Surgery	78
No. of dressings done in O. P. department	18,022

VICTORIA JUBILEE LYING-IN HOSPITAL.

Report for the yaer ended 31st March, 1913.

Kingston, 31st March, 1913.

Sir,

I have the honour to submit the report of the Victoria Jubilee Lying-in Hospital for the year ended March 31st, 1913.

The number of patients admitted during the year was 653 against 746 of the previous year.

446 of the patients were black, 195 coloured, 8 coolies, 4 white.

561 resided in Kingston, 86 St. Andrew, 2 from more remote parishes, 4 coolies came from the Coolie Depot. 172 were married.

There were nine deaths during the year, one each from Malaria, Colitis and Pulmonary Embolism, and six from Puerperal convulsion. Six of these cases were moribund when admitted and died in a few hours.

The number of infants born was 641, of these 350 were males, 291 females. There were 18 cases of twins, 52 of the infants were still born. There were six cases of abortion. 52 of the infants died.

Eight pupil nurses were admitted for training, one was unable to finish her term owing to ill health. Seven passed and had certificates given to them.

I have, etc.,

(Sgd.) M. Grabham,

Visiting Medical Officer, Victoria Jubilee Hospital

The Hon. S. M. O., Kingston.

SYNOPSIS OF CASES.

Presentations—

Vertex	622
Unreduced Occipito-posterior	3
Footling	11
Transverse	3
Face	2

Diseases and complications affecting the mother—

Abortion	6
Adherent Placenta	4
Albuminaria	28
Bronchitis	1
Convulsions (Eclampsia)	22
Contracted Pelvis (uniformly)	2
Colitis	5
Enteric Fever	1
Fibriods	1
Fever (undefined)	7
Haemorrhage, post partem	7
Haemorrhage, secondary post partem	2
Hypertrophy of cervix	1
Inertia	13
Malaria	6
Mania (puerperal)	1
Neuritis	3
Phthisis	1
Placenta Prævia	3
Pulmonary Embolism	1
Rigid Os.	14
Rheumatism	1
Syphilis	3

Diseases and the deformities affecting the infant or foetal membranes—

Ascites	1
Convulsions	2
Extra finger	2
Haemorrhage diathesis	3
Hydramnia	2
Hydrocephalus	1
Opthalmia	8
Syphilis	2

Operations—

Version	29
Application of forceps	15
Curetting	2
Craniotomy	1
For ruptured perinæum	20

Numerical Summary of results since the opening of the Institution.

Year.	No. of Patients.	Race.				Infants.				Deaths.	No. of Nurses trained.
		Black.	Coloured.	Coolies.	White.	Male.	Female.	Twins.	Still-born.		
1892–93	89	67	22	..	..	20	34	..	14	4	4
1893–94	219	171	44	3	1	74	85	1	35	9	11
1894–95	239	185	48	2	4	76	96	6	27	3	6
1895–96	217	187	26	1	3	89	86	3	40	1	5
1896–97	378	281	92	4	1	173	189	6	39	7	8
1897–98	444	319	120	3	2	229	210	12	37	10	6
1898–99	500	345	146	4	5	249	253	13	60	7	10
1899–1900	581	382	196	2	1	277	283	11	66	9	9
1900–1901	483	339	135	5	4	241	227	6	38	9	9
1901–1902	785	589	235	7	4	379	374	10	58	7	8
1902–1903	651	429	219	2	1	332	325	19	51	11	12
1903–1904	813	596	205	3	9	394	405	21	78	11	9
1904–1905	655	475	174	2	4	339	307	20	62	8	11
1905–1906	415	248	156	4	7	198	214	8	36	10	9
1906–1907	441	352	79	3	7	221	215	15	29	11	6
1907–1908	434	270	161	3	—	243	155	14	40	7	8
1908–1909	596	400	188	3	5	300	268	7	49	10	6
1909–1910	650	380	265	4	1	330	319	10	53	9	7
1910–1911	600	382	212	3	3	288	316	15	60	5	7
1911–1912	746	581	155	5	5	345	364	16	71	8	7
1912–1913	653	446	195	8	4	350	291	18	52	9	7

Financial Return of the Public Hospital for the five years ended 31st March, 1909, 1910, 1911, 1912, 1913.

Year.	Average daily number of Beds.	Gross Expenditure.	Receipts.	Net expenditure after deducting receipts.	Number of patients admitted.	Average annual cost per bed calculated on the gross expenditure.	Average daily cost per bed calculated on the gross expenditure.	Average annual cost per bed calculated on the net expenditure.	Average daily cost per bed calculated on the net expenditure.	Cost of maintenance alone per bed per diem.
		£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	s .d.
1908-9 ..	188	8,203 10 7	394 3 11	7,809 6 8	3,529	43 12 8	0 2 4½	41 10 9	0 2 3½	0 10½
1909-10 ..	189	8,094 8 6	344 5 7	7,750 2 11	3,498	42 16 6	0 2 7¼	41 0 1¼	0 2 2¾	0 10½
1910-11 ..	193	9,016 14 10	337 9 11	8,679 4 1	3,172	46 14 4½	0 2 6½	44 19 4¾	0 2 5½	0 10½
1911-12 ..	217	9,796 2 3	487 5 3	9,308 17 0	3,132	44 6 0	0 2 5	42 1 0	0 2 2¼	0 10¼
1912-13 :	223	*10.054 0 46	702 16 1	9,837 8 5	3,199	46 4 3½	0 2 6¼	43 1 3¼	0 2 4¼	0 10¼

	£ s. d.
Total cost of Maintenance	3,669 16 9
Less for feeding of 16 nurses (10 at 5s. and 6 at 3s. per week) in nursing home ..	176 16 0
	£3,493 0 9

*This amount includes £234 4s. 9d. for Hospital probationers.

Financial Return of the Victoria Jubilee Lying-in Hospital for the six years ended 31st March, 1908, 1909, 1910, 1911, 1912 1913.

Year.	Average daily No. of beds occupied.	Gross Expenditure.	Receipts.	Net expenditure after deducting receipts.	No. of patients admitted.	Average annual cost per occupied bed calculated on the gross expenditure.	Cost of maintenance alone per occupied bed per diem.	Daily cost per occupied bed calculated on the gross expenditure.	Average annual cost per occupied bed calculated on the net expenditure.	Average daily cost per occupied bed calculated on the net expenditure.
		£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1907-08 ..	13	1,199 3 0	264 4 9	934 18 6	434	92 4 10¼	0 1 8	0 5 0½	71 18 4	0 3 11¼
1908-09 ..	17	1,263 13 4	301 10 0	962 3 4	596	74 6 8	0 1 6	0 4 0¾	56 11 11½	0 3 1¼
1909-10 ..	19	1,256 2 5	361 1 9	895 0 8	650	66 2 8	0 1 4½	0 3 7¼	47 2 1	0 2 6¾
1910-11 ..	17	1,300 3 0	321 1 9	979 1 3	600	76 9 7	0 1 6¾	0 4 2¼	57 11 10	0 3 1¾
1911-12 ..	32	1,355 5 4	392 11 6	962 13 10	746	42 7 0½	0 0 10	0 2 3¾	30 1 8	0 1 7¾
1912-13* ..	30	1,430 12 9	366 8 6	1,064 4 3	653	47 13 9	0 0 11	0 2 7¼	35 9 5¾	0 1 11¼

* Patients ..	17	
Pupil nurses ..	8	
Charge nurses ..	3	
Matron ..	1	Up to 12th December, 1912.
Asst. Matron ..	1	
	30	

LUNATIC ASYLUM.

Report for the year ended 31st March, 1913.

No.—1248-2505.

Island Medical Office,
Kingston, 3rd July, 1913.

Sir,

I have the honour to forward the accompanying Annual Report of the Lunatic Asylum for the year ended 31.3.13.

I have the honour to be,
Sir,
Your obedient Servant,
J. E. Ker,
Superintending Medical Officer.

The Honourable,
The Colonial Secretary,
Kingston.

Lunatic Asylum.

Report for the year ended 31*st March,* 1913.

Sir,

I have the honour to submit the Annual Report of the Jamaica Lunatic Asylum for the twelve months ending with March 31st, 1913.

2. The patients on the first of April, 1912, numbered 1,195, of whom 593 were men and 602 women whilst on the 31st March, 1913, they numbered 1,314, or an increase of 119 in the twelve months.

3. The marked increase of population may be attributed to four factors:—

a. Repatriation of insane Jamaicans from the Canal Zone.
b. Certification of harmless inmates of Parochial poorhouses.
c. Exceptionally low death-rate of the inmates of the Asylum.
d. Hurricane in the western parishes last Autumn.

4. The total number of patients under treatment was 1,547 including three births, whilst the daily average numbered 1,272, or about 100 in excess of last year.

5. The patients admitted numbered 349, of whom 160 were males and 189 females. To this number must be added three births in the Institution, or a total of 84 in excess of last year's admissions.

6. In the following table based on the census of 1911, will be found the population of each parish, the number and proportion of its insane.

Parish.	Population.	No. of Insane.	Proportion.
Kingston and Port Royal ..	59,674	266	1 in 264
St. Catherine ..	88,104	185	" 476
Clarendon ..	73,914	103	" 717
Manchester ..	65,194	68	" 958
St. Elizabeth ..	78,700	89	" 884
Westmoreland ..	66,456	95	" 699
Hanover ..	37,432	36	" 1,039
St. James ..	41,376	73	" 566
Trelawny ..	35,463	49	" 723
St. Ann ..	70,651	75	" 942
St. Mary ..	72,956	85	" 858
Portland ..	49,360	44	" 1,122
St. Thomas ..	39,330	51	" 771
St. Andrew ..	52,773	95	" 555
Total ..	831,383	1,314	" 632

7. Whilst the population of the Island has increased 30% in 20 years, in the same time the insane population has increased 100% and now there is one insane person for every 632 of the inhabitants.

8. The number of patients discharged recovered, including an infant was 135, one was discharged not improved. The rate of recovery calculated on the number of admissions was 38.94.

9. Forty-five men and fifty-two women including two infants, or a total of ninety-seven died. Notwithstanding the presence of a few cases of enteric fever in our wards, the good health of the Asylum was maintained with a low death rate of 7.46 per cent. of the average number resident· One patient was admitted suffering from enteric fever, and one nurse employed in the kitchen suffered, but there is no reason to suspect any connection between her and the cases in the wards: there could be none between her and the male division which has a kitchen of its own.

10. During the year extensive painting and renovation of the buildings were carried out, and a new ward for the safe custody of criminal lunatics commenced.

Owing to the marked increase of our population it will be necessary to build another ward for the accommodation of 200 inmates within the next twelve months.

11. Rain fell on 67 days, but as 17 inches of a total of 21.70 fell in the month of November, drought conditions prevailed most of the time, and another attempt to grow sea-island cotton did not prove a success.

12. Our thanks are due to many friends for kind assistance in providing entertainments for the inmates, and to the Inspector General of Police for permitting the Police Band to provide music once a month.

Mrs. Bourne visited all the wards on Christmas day and kindly addressed the inmates.

13. Magazines and illustrated papers are gratefully acknowledged from the following ladies and gentlemen:—

Mrs. Jordon Andrews, Mrs. Abrahams, Miss Thompson, R. S. Haughton, Esq., W. P. Purdon, Esq., John McDonald, Esq., Archibald Munroe, Esq., D. E. Sampson, Esq., and the Honorary Secretaries of the Jamaica Institute, Jamaica, Liguanea and St. Andrew Clubs.

14. The Hon. H. A. L. Simpson was appointed a Member of the Board of Visitors for such time as he may remain Mayor of Kingston.

15. Dr. Cassidy, the Second Assistant Medical Officer was appointed District Medical Officer for Claremont, and the vacancy was filled by the appointment of Dr. Mark Anthony.

Upon the retirement of Mr. J. W. A. VanCuylenburg, Mr. George Taylor was appointed Clerk and Purveyor to the Asylum.

16. £19,034 2s. 7d. were voted for the maintenance of the Asylum, and £18,414 4s. 1d. expended, or a rate of 9 3-16 per head per day.

I have the honour to be,
Sir,
Your obedient servant,
D. J. WILLIAMS,
Medical Superintendent.
The Lunatic Asylum,
July, 2nd., 1913.

The Hon.
The Suptg. Medical Officer,
Kingston.

TABLE I.—Shewing the actual admissions, re-admissions, discharges and deaths during the year ended 31st March, 1913.

	Males.	Females.	Total.	Males.	Females.	Total.
In Asylum 1st April, 1912	..	..	..	593	602	1,195
Cases admitted—						
First admissions	139	178	317			
Not first admissions	21	11	32			
Captured	4	..	4			
Birth	..	3	3			
Total cases admitted during the year	..	..	..	164	192	356
Total cases under care during the year	..	..	..	757	794	1,551
Cases discharged—						
Recovered	73	61	134			
Relieved	..	..	..			
Not improved	1	..	1			
Escaped	4	..	4			
Died	45	50	95			
Infant removed	..	1	1			
Infants died	..	2	2			
Total discharged and died during the year	..	..	..	123	114	237
Remaining in Asylum 31st March, 1913.	..	..	..	634	680	1,314
Average number resident during the year				625	647	1,272
Persons under care during the year (*i.e.*, separate persons in contradistinction to cases which may include the same individual more than once)				750	793	1,543
Persons admitted				157	188	345
Persons recovered				73	61	134

Table Ia.—Shewing the number of previous attacks among those admitted during the year 1912-1913 distinguishing those attacks that have been treated to recovery and discharged.

Number of previous attacks.	Having had previous attacks.					
	All attacks.			Attacks followed by discharge or recovery.		
	Males.	Females.	Total.	Males.	Females.	Total.
Have had 1 previous attack . .	18	35	53	2	29	31
Have had 2 previous attacks . .	5	4	9	. .	5	5
Have had 3 previous attacks . .	3	4	7	. .	4	4
Have had 4 previous attacks . .	2	3	5	1	2	3
Have had more than 5 attacks . .	2	. .	2	. .	. .	. .
	30	46	76	3	40	43

Table II.—Shewing the admissions, re-admissions, discharges and deaths for the past sixteen years ended 31st March, 1913.

————	Males.	Females.	Total.	Males.	Females.	Total.
Remaining on 31st March, 1897 . .	. .	. .	. .	345	377	722
Admitted during the last sixteen years . .	1,633	1,586	3,219			
Re-admissions	316	263	579			
Total number of admissions . .	. .	. .	. .	1,949	1,849	3,798
Total number under care	. .	. .	. .	2,294	2,226	4,520
Discharged cases—						
Recovered	866	791	1,657			
Relieved	33	19	52			
Not improved	25	9	34			
Died	734	727	1,461			
Escaped and not captured	2	. .	2			
Total discharged and died	. .	. .	. .	1,660	1,546	3,206
Remaining 31st March, 1913 . .	. .	. .	. .	634	680	1,314
Average yearly number resident . .	. .	. .	. .	490	496	986

TABLE III.—Shewing the Admissions, Discharges and Deaths, with the mean Annual Mortality, and the proportion of recoveries per cent. of the Admissions for each of the last sixteen years.

Year.	Admitted.			Discharged.												Remained 31st March in each year			Average number Resident.			Percentage of Recoveries. on admission.			Percentage of Deaths. on average number Resident.		
				Recovered.			Relieved.			Not Improved.			Died.														
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1897–98 ..	109	95	204	34	34	68	..	..	..	2	..	2	25	44	69	393	394	787	377	382	759	31.19	36.84	34.01	6.63	11.16	8.89
1898–99 ..	88	80	168	66	53	119	..	..	..	2	2	4	32	31	63	381	386	767	386	388	774	75.	66.25	70.62	8.29	7.98	8.13
1899–1900 ..	96	93	189	34	32	66	1	..	1	2	2	4	38	30	68	402	417	819	390	399	789	35.41	34.41	34.90	9.74	7.52	8.36
1900–01 ..	104	96	200	48	42	90	2	..	2	..	..	..	32	27	59	424	444	868	414	430	844	46.15	43.75	44.95	7.72	6.27	6.99
1901–02 ..	99	83	182	55	48	103	3	1	4	2	..	2	40	38	78	423	440	863	423	439	862	55.55	57.83	56.69	9.45	8.65	9.05
1902–03 ..	118	108	226	41	35	76	..	..	..	..	..	..	25	29	54	475	484	959	456	459	915	43.74	32.40	33.57	5.48	6.31	5.89
1903–04 ..	105	101	206	34	33	67	..	..	..	3	..	3	38	57	95	505	495	1,000	492	480	972	32.38	32.67	32.52	7.72	11.87	9.79
1904–05 ..	124	116	240	53	37	90	..	1	1	3	1	4	37	74	111	536	498	1,034	520	502	1,022	42.74	31.89	37.31	7.11	14.74	10.92
1905–06 ..	134	96	230	52	53	105	11	4	15	1	..	1	44	42	86	562	495	1,057	545	503	1,048	38.80	55.20	47.	8.07	8.34	8.20
1906–07 ..	109	125	234	83	68	151	8	5	13	..	..	..	76	45	121	504	502	1,006	543	505	1,048	76.14	54.40	55.27	13.99	8.91	11.45
1907–08 ..	148	131	279	58	61	119	3	3	6	..	1	1	72	55	127	519	513	1,032	520	513	1,033	39.18	46.56	42.87	13.84	10.72	12.28
1908–09 ..	114	123	237	51	34	85	4	2	6	1	2	3	81	39	120	496	559	1,055	515	535	1,050	44.73	27.64	36.18	15.72	7.28	11.50
1909–10 ..	139	123	262	46	51	97	1	1	2	2	1	3	60	73	133	525	556	1,081	510	571	1,081	33.09	41.46	37.27	11.76	12.78	12.27
1910–11 ..	164	160	324	71	72	143	1	..	1	1	..	1	49	42	91	567	602	1,169	546	591	1,137	43.29	45.	44.14	8.97	7.10	8.03
1911–12 ..	138	130	268	67	77	144	3	2	5	1	..	1	40	51	91	593	602	1,195	581	602	1,183	48.55	59.23	53.89	6.88	8.47	7.67
1912–13 ..	160	189	349	73	61	134	..	..	..	1	..	1	45	50	95	634	680	1,314	625	647	1,272	45.62	32.27	38.94	7.2	7.72	7.46
Totals	1,949	1,849	3,798	866	791	1,657	37	19	56	21	9	30	734	727	1,461	7,939	8,067	16,006	7,843	7,946	15,789	731.56	697.80	700.13	148.57	145.82	146.88
Average for 16 years	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	496.18	504.18	1000.36	490.18	496.62	986.80	45.72	43.61	43.75	9.28	9.11	9.18

TABLE IV.—Shewing the history of the annual admissions for the past sixteen years, with the discharges and deaths, and the numbers of each year remaining on 31st March, 1913.

Year.	Admitted.					Of each year's admissions, discharged and died in the year.												Total discharged and died of each year's admissions to 31st March, 1913.												Remaining of each year's Admissions 31st March, 1913.			Year.
	New Cases.		Re-admissions.			Recovered.			Relieved.			Not improved.			Died.			Recovered.			Relieved.			Not improved.			Died						
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	M.	M.	F	T.	M.	F	T.	M	F	T.	
1897–98 ..	91	82	18	13	204	..	..	..	..	..	..	..	..	..	..	..	..	52	48	100	1	..	1	..	..	..	39	32	71	17	15	32	1897–98
1898–99 ..	80	69	8	11	168	..	..	..	..	..	..	..	..	..	2	1	3	42	33	75	1	3	4	2	2	4	31	24	55	12	18	30	1898–99
1899–1900 ..	86	79	10	14	189	..	..	..	..	..	..	..	..	..	..	1	1	41	44	85	1	1	2	..	..	..	38	26	64	16	22	38	1899–1900
1900–1901 ..	88	87	16	9	200	..	..	..	..	..	..	..	..	..	..	..	..	43	39	82	2	3	5	..	..	..	38	36	74	21	18	39	1900–1901
1901–1902 ..	82	76	17	7	182	..	..	..	..	..	..	..	..	..	..	..	..	37	30	67	..	1	1	4	..	4	45	31	76	13	21	34	1901–1902
1902–1903 ..	104	98	14	10	226	..	..	..	..	..	..	..	..	..	..	..	..	50	37	87	1	..	1	1	..	1	38	29	77	28	32	60	1902–1903
1903–1904 .	76	70	29	31	206	..	..	..	..	..	..	..	..	..	1	1	2	49	39	88	1	1	2	4	1	5	31	35	66	20	25	45	1903–1904
1904–1905 ..	103	106	21	10	240	..	..	..	..	..	..	..	..	..	..	1	1	58	40	98	..	2	2	1	..	1	46	42	88	19	32	51	1904–1905
1905–1906 ..	100	65	34	31	230	..	..	..	..	..	..	..	..	..	..	1	1	55	51	106	3	3	6	2	..	2	49	26	75	25	16	41	1905–1906
1906–1907 ..	77	93	32	32	234	..	..	..	..	..	..	..	..	..	..	2	2	53	60	113	2	5	7	2	..	2	40	32	72	12	28	40	1906–1907
1907–1908 ..	119	115	29	16	279	..	..	..	..	..	..	..	..	..	1	1	2	61	54	115	2	..	2	..	1	1	39	32	71	46	44	90	1907–1908
1908–1909 ..	92	103	22	20	237	1	..	1	..	..	..	..	..	..	..	3	3	43	45	88	5	1	6	3	2	5	35	44	79	28	31	59	1908–1909
1909–1910 ..	129	107	10	16	262	1	1	2	..	..	..	..	..	..	5	4	9	59	71	130	3	..	3	1	1	2	34	32	66	42	19	61	1909–1910
1910–1911 ..	143	138	21	22	324	7	4	11	..	..	..	..	..	..	6	8	14	65	72	137	1	1	2	..	..	..	32	34	66	66	53	119	1910–1911
1911–1912 ..	124	120	14	10	268	34	28	62	..	..	..	..	..	..	11	7	18	50	51	101	..	1	1	1	..	1	28	24	52	59	54	113	1911–1912
1912–1913 ..	139	178	21	11	349	30	28	58	..	..	..	1	..	1	15	15	30	30	28	58	..	..	..	1	..	1	15	15	30	114	146	260	1912–1913
	1,633	1,586	316	263	1,798	73	61	134	..	..	..	1	..	1	41	45	86	788	742	1,530	23	22	45	22	7	29	578	494	1,082	538	573	1111	

Summary of total admissions.			Males.	Females.	Both Sexes.
Percentage of cases	recovered	..	40.43	40.76	40.60
do.	relieved.	..	1.18	1.18	1.18
do.	not improved.	..	1.12	.37	.74
do.	died.	..	29.65	26.71	28.18
do.	remaining	..	27.62	30.98	29.30
			100.00	100.00	100.00

TABLE V.—Shewing the causes of death during the year 1912-1913 with the ages at death.

—	Under 15		15 & Under 20		20 & Under 25		25 & Under 30		30 & Under 35		35 & Under 40		40 & Under 45		45 & Under 50		50 & Under 55		55 & Under 60		60 & Under 65		65 & Under 70		70 & Under 75		75 & Under 80		80 & Under 85		Over 85		Total		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Cerebro Spinal Diseases—																																			
Chronic Brain disease	..	..	..	1	..	..	1	1	..	1	..	2	1	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	8	11
General Paralysis	..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
Abscess of Brain	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Septic Meningitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Maniacal Exhaustion	..	..	..	1	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Cerebral Hæmorrhage	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Thoracic Diseases—																																			
Phthisis	..	..	..	..	2	1	1	2	1	2	..	1	2	2	2	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	10	8	18
Heart Disease	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Pneumonia	..	..	..	..	1	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	4	1	5
Chronic Pleurisy	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Abscess of Lung	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3
Tubercular Pleurisy	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Heart failure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Chronic Myocarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Gangrene of Lung	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Abdominal Diseases—																																			
Dysentry	..	..	..	..	..	..	1	..	..	2	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6
Cancer of Liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Peritonitis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	3	4
Tubercular Peritonitis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Tabes Mesenterica	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Tubercular Enteritis	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	2	3
Multiple Abscesses of Liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Bright's disease	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	5	5
Acute Colitis	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	3
General Diseases—																																			
Cellulitis of Leg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
General Tuberculosis	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2	3
Pellagra	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Senile Decay	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Malarial Fever	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Senile Gangrene	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
Septicæmia	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Gangrenous Stomatitis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
																																	45	50	95

TABLE VI.—Shewing the length of residence in those discharged recovered and in those who have died during the year 1912-1913.

Length of Residence.	Recovered.			Died.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month	1	1	2	5	3	8
From 1 to 3 months	11	5	16	5	5	10
From 3 to 6 "	25	30	55	3	4	7
From 6 to 9 "	8	13	21	5	2	7
From 9 to 12 "	11	4	15	4	4	8
From 1 to 2 years	13	7	20	8	6	14
From 2 to 3 "	4	1	5	4	8	12
From 3 to 5 "	..	..	..	4	6	10
From 5 to 7 "	..	..	..	1	3	4
From 7 to 10 "	..	..	..	1	2	3
From 10 to 12 "	..	..	..	..	..	..
From 12 to 15 "	..	..	..	2	2	4
From 15 to 20 "	..	..	..	1	1	2
From 20 to 25 "	..	..	..	1	..	1
From 25 to 30 "	..	..	..	..	4	4
From 30 to 35 "	..	..	..	..	..	..
From 35 to 40 "	..	..	..	1	..	1
Upwards of 40 "	..	..	..	..	..	..
	73	61	134	45	50	95

TABLE VII.—Shewing the duration of the disorder on admission in the admissions, discharges and deaths during the year ended 31st March, 1913.

CLASS.	Admissions.			Discharges.						Deaths.		
				Recovered.			Removed. Relieved or otherwise.					
	M	F.	T.	M	F.	T.	M	F.	T.	M	F.	T.
First Class—First attack, and within 3 months on admissions	90	107	197	48	29	77	1	..	1	28	23	51
Second Class—First attack, above 3 and within 12 months on admission ..	19	21	40	..	9	9	..	..	..	8	14	22
Third Class—Not first attack, and within 12 months on admission	30	34	64	20	20	40	..	..	..	2	7	9
Fourth Class—First attack or not, but of more than 12 months on admission ..	16	21	37	2	3	5	..	..	..	2	6	8
Fifth Class—Congenital	2	2	4	..	..	..	..	..	..	2	..	2
Unknown	3	4	7	3	..	3	..	..	..	3	..	3
Total	160	189	349	73	61	134	1	..	1	45	50	95

TABLE VIII.—Shewing in quinquennial periods the ages of those admitted, recovered and died during the year 1912-13 and those remaining on 31st March, 1913.

Ages.	Admissions.			Recoveries.			Deaths.			Patients resident 31st March, 1913.		
	M.	F.	T.	M.	F.	T.	M	F.	T.	M	F.	T.
From 5 to 10 yrs	..	..	..	..	..	..	..	..	..	..	..	..
“ 10 to 15 “	1	5	6	..	1	1	..	..	..	2	4	6
“ 15 to 20 “	13	18	31	12	9	21	..	3	3	9	17	26
“ 20 to 25 “	24	26	50	15	12	27	3	5	8	43	47	90
“ 25 to 30 “	24	25	49	11	12	23	4	5	9	81	58	149
“ 30 to 35 “	26	38	64	14	7	21	5	7	12	90	104	194
“ 35 to 40 “	23	24	47	8	8	16	4	7	11	104	97	201
“ 40 to 45 “	14	18	32	1	4	5	6	7	13	87	85	172
“ 45 to 50 “	14	12	26	5	5	10	8	5	13	72	64	136
“ 50 to 55 “	8	11	19	5	1	6	5	2	7	52	63	115
“ 55 to 60 “	6	6	12	..	1	1	2	4	6	37	51	88
“ 60 to 65 “	4	1	5	..	..	..	3	2	5	33	37	70
“ 65 to 70 “	2	2	4	1	1	2	3	..	3	8	17	25
“ 70 to 75 “	..	2	2	..	..	..	..	1	1	12	16	28
“ 75 to 80 “	..	1	1	1	..	1	1	..	1	3	6	9
“ 80 to 85 “	1	..	1	..	..	..	1	..	1	1	1	2
“ 85 to 90 “	..	..	..	..	..	..	..	1	1	..	3	3
“ 90 to 95 “	..	..	..	..	..	..	..	1	1	..	..	..
Unknown ..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	160	189	349	73	61	134	45	50	95	634	680	1,314
Mean Age..	34.4	33.26	33.83	30.84	30.39	30.61	44.73	40.18	42.45	40.42	41.57	40.99

TABLE IX.—Shewing the condition as to Marriage in the Admissions, Recoveries and Deaths during the year.

Condition in reference to Marriage	Admissions.			Recoveries.			Deaths.		
	M	F.	T.	M	F.	T.	M	F.	T.
Single	114	130	244	57	46	103	23	33	56
Married	39	41	80	16	10	26	18	12	30
Widowed	3	14	17	..	3	3	1	2	3
Unknown	3	4	7	..	2	2	3	3	6
Divorced	1	..	1	..	..	..	..	..	..
Total	160	189	349	73	61	134	45	50	95

TABLE X.—Shewing the probable causes of insanity in the Patients admitted during the year ended 31st March, 1913.

Causes of Insanity.	Number of instances in which each cause was assigned.											
	Number of cases. Admissions—Males, 160; Females, 189; Total 349.											
	As predisposing cause.			As exciting cause.			As predisposing or exciting where these could not be distinguished			Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Moral—												
Domestic trouble (including loss of relatives and friends)	..	..	..	3	1	4	..	..	..	3	1	4
Adverse circumstances (including business anxieties and pecuniary difficulties)	..	..	..	4	..	4	..	..	..	4	..	4
Mental anxiety and worry (not included under above two heads) and overwork	..	..	..	1	3	4	..	..	..	1	3	4
Religious excitement	..	..	..	1	1	2	..	..	..	1	1	2
Love affairs (including seduction)	..	..	..	1	1	2	..	..	..	1	1	2
Fright and nervous shock	..	..	..	..	..	..	..	..	..	..	..	..
Grief	..	..	..	..	..	..	..	..	..	..	..	..
Earthquake shock	..	..	..	..	..	..	..	..	..	..	..	..
Physical—												
Intemperance in drink	..	..	..	4	..	4	..	..	..	4	..	4
Sexual Intemperance	..	..	..	..	..	..	..	..	..	..	..	..
Venereal Diseases	..	..	..	1	..	1	..	..	..	1	..	1
Self-abuse (sexual)	..	..	..	..	..	..	..	..	..	..	..	..
Over-exertion	..	..	..	..	..	..	..	..	..	..	..	..
Ganga-smoking	..	..	..	7	1	8	..	..	..	7	1	8
Accident or injury	..	..	..	..	..	..	..	..	..	..	..	..
Puberty	1	..	1	..	..	..	..	..	..	1	..	1
Fevers	..	..	..	..	4	4	..	..	..	..	4	4
Privation and starvation	..	..	..	..	..	..	..	..	..	..	..	..
Senility	4	1	5	..	..	..	..	..	..	4	1	5
Other bodily disease	..	..	..	1	..	1	..	..	..	1	..	1
Previous attacks	30	42	72	..	..	..	..	..	..	30	42	72
Hereditary influence	42	53	95	..	..	..	..	..	..	42	53	95
Congenital defect ascertained	..	..	..	2	..	2	..	..	..	2	..	2
Adolescence	11	1	12	..	..	..	..	..	..	11	1	12
Epilepsy	..	..	..	10	5	15	..	..	..	10	5	15
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..
Tubercular disease	..	..	..	1	..	1	..	..	..	1	..	1
Pregnancy	..	..	..	..	5	5	..	..	..	..	5	5
Not known	..	..	..	57	91	148	..	..	..	51	91	148
Other ascertained causes	..	..	..	..	..	..	..	..	..	..	..	..
Climacterium	..	..	..	..	..	..	..	..	..	..	..	..
Traumatism	..	..	..	2	1	3	..	..	..	2	1	3
Pellagra	..	..	..	1	..	1	..	..	..	1	..	1

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* With reference to the distinction between "predisposing" and "exciting" causes, it must be understood that no single cause enumerated as both predisposing and exciting in the case of any individual patient.

† The figure in the total column represent the entire number of instances in which the several causes (either alone or in combination with others) were stated to have produced the mental disorder. The excess of the aggregate of such causes over the number of patients ~~admitted is~~ owing to the combination of causes.

Table XI.—Shewing the form of mental disorder in the Admissions, Recoveries and Deaths during the year and the form of mental disorder of the inmates on 31st March, 1913.

Form of Mental Disorder.	Admissions.			Recoveries.			Deaths.			Remaining in Asylum.		
	M.	F.	M.	T.	F.	T.	M.	F.	T.	M.	F.	T.
Congenital or Infantile mental deficiency												
(a). with Epilepsy ..	..	9	9	..	..	..	..	1	1	10	6	16
(b) without Epilepsy ..	4	3	7	..	..	..	2	1	3	25	7	32
Epilepsy—Acquired ..	9	1	10	4	1	5	4	5	9	46	40	86
General Paralysis of the Insane ..	2	..	2	..	..	..	3	..	3	..	..	..
Mania—												
Acute	96	91	187	45	31	76	20	14	34	141	99	240
Chronic	7	28	35	2	..	2	6	5	11	295	198	493
Recurrent	30	11	41	21	18	39	2	11	13	19	20	39
a Potu	..	..	..	..	..	..	..	2	2	..	..	..
Puerperal	..	2	2	..	..	..	..	4	4	..	34	34
Senile	4	1	5	..	..	..	3	..	3	2	10	12
Melancholia—												
Acute	2	9	11	1	8	9	2	1	3	..	16	16
Chronic	..	5	5	..	..	..	..	..	..	..	19	19
Recurrent	1	4	5	..	2	2	..	1	1	1	20	21
Puerperal	..	..	..	..	1	1	..	..	..	..	10	10
Senile	..	1	1	..	..	..	..	..	..	..	16	16
Dementia—												
Primary	4	12	16	..	..	..	2	..	2	4	10	14
Secondary	..	9	9	..	..	..	1	4	5	90	175	265
Senile	..	3	3	..	..	..	..	1	1	..	..	..
Organic (*i.e.* from tumours, coarse brain lesions, etc.) ..	1	..	1	..	..	..	..	..	..	1	..	1
	160	189	349	73	61	134	45	50	95	634	680	1,314

Table XII.—Shewing the previous occupations of patients admitted during the year 1912-1913.

Males.

Occupation.	No.	Occupation.	No.
Painters	3	Cart Driver	1
Groom		Jockey	1
Blacksmith	3	Constables	2
Teacher	1	Hatmaker	1
Masons	3	Agriculturists	2
Carpenters	6	Cake Seller	1
Pharmacist	1	Shoemakers	2
Cultivators	7	Coachman	1
Minister	1	None	3
Fishermen	2	Tailors	6
Labourers	90	Commission Agent	1
Ex-Soldier	1	Baker	2
Clerks	2	Insurance Agent	1
Sailors	3	Theological Student	1
Vagrants	2	Not known	4
Saddlers	2	Tinsmith	1
Sawyer	2		
		Total ..	160

Females.

Occupation.	No.	Occupation.	No.
Salvation Army ensign	1	Seamstresses	4
Domestic Servants	28	Hatmaker	1
Dressmakers	14	Washerwoman	8
Milliner	1	Unknown	9
Higglers	5	Basket-maker	1
Labourers	97	Vagrant	2
Shopkeeper	1	Postmistress	1
Cook	1	None	1
Nurses	3	Butleress	2
Clerks	2	Matmaker	1
Teachers	5		
Barmaid	1	Total	189

TABLE XIII.—Shewing the Physical condition of patients admitted in 1912-1913.

	Males.	Females.	Total.
In good bodily health and condition	25	92	117
In fair bodily health and condition	100	76	176
In poor, feeble, very feeble, bad and exhausted condition	35	20	55
Impaired	..	1	1
Total	160	189	349

FINANCIAL STATEMENTS.

TABLE XIV.—Cost of maintenance for the year 1912-13.

	£	s.	d.
Passage money for Junior Assistant Medical Officer and wife from England	40	0	0
Salaries	2,385	9	2
Wages	4,048	7	9
Religious Services	56	14	0
Provisions	8,446	0	10
Necessaries	521	2	0
Clothing and bedding	1,351	0	6
Equipment	171	3	6
Furniture	213	12	4
Wine and Spirits	29	19	11
Surgery and Dispensary	298	6	4
Funeral Expenses	67	16	10
Removals	30	1	7
Tenants Repairs	85	13	7
Farms and Grounds	94	1	4
Miscellaneous	144	3	6
Telephones	24	3	0
Scavengery	6	14	2
Lighting	399	13	9
	18,414	4	1

LESS RE-IMBURSEMENTS.

		£ s. d
Contributing Patients, etc.	889 13 3	
Immigration Fund (Law 31 of 1910)	194 11 9½	
Parochial Poor Rates	8,237 10 8	9,321 15 8½
Net cost to General Revenue		9,092 8 4½

TABLE NO. XV.—Parochial Maintenace Account, Law 30 of 1873.

	No. of Patients 1912-13.			Amount for 1912-13.	No. of Patients 1911-12.			Amount for 1911-12.
	Males	Fe.-males	Total		Males	Fe-males	Total	
				£ s. d.				£ s. d.
Kingston ..	107	154	261	1,520 15 0¼	92	145	237	2,874 14 6
St. Andrew ..	48	56	104	610 12 6¼	44	52	96	1,193 11 5¼
St. Thomas ..	19	35	54	324 9 5¼	17	34	51	668 12 5
Portland ..	21	23	44	274 6 6¼	23	21	44	571 11 9
St. Mary ..	53	38	91	525 3 10¾	50	33	83	1,030 16 6½
St. Ann ..	40	42	82	503 11 6¾	36	42	78	994 5 5¾
Trelawny ..	16	33	49	284 8 11	15	29	44	556 7 2¾
St. James ..	37	43	80	457 1 1¼	33	36	69	828 0 5
Hanover ..	13	26	39	242 3 7¼	15	21	36	484 2 7
Westmoreland ..	48	58	106	623 7 5¾	42	54	96	1,153 1 6½
St. Elizabeth ..	49	52	101	583 6 3¾	43	41	84	1,071 8 8¾
Manchester ..	46	28	74	455 11 11	45	29	74	799 13 0½
Clarendon ..	53	46	99	625 12 3¾	54	50	104	1,187 2 11¼
St. Catherine ..	97	107	204	1,200 0 4½	92	99	191	2,291 17 9¼
Port Royal ..	1	..	1	6 19 8¼	1	..	1	14 11 6
	648	741	1,389	8,237 10 8	602	686	1,288	15,722 17 11

TABLE XVI.—Statement respecting Minor Funds of the Jamaica Lunatic Asylum to 31st March, 1913.

1.—SERVANTS' FINE FUND.

	£ s. d.
Balance on 31st March, 1912	241 19 3¾
Receipts in 1912-1913	12 16 8
	254 15 11¾
Expenditure during 1912-1913	14 11 11
Amount at credit 31st March, 1913	240 4 0¾

2.—PATIENTS' FUND.

Balance on 31st March, 1912	1,024 10 4½
Receipts in 1912-1913	96 3 8¼
	1,120 14 0¾
Expenditure during 1912-1913	72 15 6½
Amount at credit 31st March, 1913	1,047 18 6¼

3.—O'LOUGHLIN'S FUND.

Balance on 31st March, 1912	434 15 0
Receipts in 1912-1913	15 6 9
	450 1 9
Expenditure during 1912-1913	14 13 0
Amount at credit 31st March, 1913	435 8 9

TABLE NO. XVII.—Shewing the total number of patients under treatment from 1881-82 to 1912-1913; the Total Cost; the Re-imbursements-in-Aid of Expenses incurred by the Government; the sources from which they are derived; and the Cost of Lunatic Asylum to General Revenue.

Years.	Total number of Patients under treatment.	Total Cost.	Reimbursements-in-Aid.				Net Cost of the Lunatic Asylum to General Revenue.
			Contributing Patients, &c.	Immigration Department.	Parochial Poor Rate.	Total Reimbursements-in-Aid.	
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1881-82	445	6,846 13 2½	134 16 1	None.	4,256 1 3	4,390 17 4	2,455 15 10½
1882-83	512	7,061 16 9½	189 14 5	"	4,643 8 8	4,833 3 1	2,228 13 8½
1883-84	505	6,935 14 2½	208 6 2	"	5,203 10 11	5,411 17 1	1,523 17 1½
1884-85	513	6,871 12 6	252 13 2	"	4,879 16 0	5,132 9 2	1,739 3 4
1885-86	531	7,027 7 3	376 6 9	"	4,677 15 5	5,054 2 2	1,973 5 1
1886-87	530	7,067 10 4½	415 15 7	"	4,971 6 3	5,387 1 10	1,680 8 6½
1887-88	541	7,710 5 6	365 4 7	"	5,587 15 9	5,953 0 4	1,757 5 2
1888-89	584	8,781 14 0	391 0 6	"	6,677 13 2	7,068 13 8	1,713 0 4
1889-90 (6 months) ..	541	4,755 14 0	151 13 5	"	3,796 11 11	3,948 5 4	807 8 8
1890-91	648	10,093 10 7½	301 10 0	"	8,208 4 11	8,509 14 11	1,583 15 8½
1891-92	704	11,578 17 2½	471 6 10	"	9,276 3 2¾	9,747 10 0¾	1,831 7 1¾
1892-93	702	11,453 1 3¾	532 6 0	"	9,369 19 4	9,902 5 4	1,550 15 11¾
1893-94	729	11,280 18 1	492 16 4	"	9,197 13 9	9,690 10 1	1,590 8 0
1894-95	741	11,648 15 6½	384 2 8	"	9,457 16 2½	9,841 18 10½	1,806 16 8
1895-96	795	11,867 3 1¾	418 13 6	"	9,941 19 0	10,360 12 6	1,506 10 7¾
1896-97	851	12,901 18 4¼	458 15 2	"	10,932 11 0	11,391 6 2	1,510 12 2¼
1897-98	926	14,061 12 9	532 19 8	"	11,772 1 4	12,305 1 0	1,756 11 9
1898-99	953	13,651 4 1	359 10 8	"	11,767 0 9	12,126 11 5	1,524 12 8
1899-1900	956	13,559 10 1	454 9 1	"	11,514 19 3	11,969 8 4	1,590 1 9
1900-1901	1,019	14,445 3 2½	525 8 5	"	12,333 1 8½	12,858 10 1½	1,586 13 1
1901-1902	1,050	14,759 17 8	547 3 10½	"	12,468 15 9¼	13,015 19 7¾	1,743 18 0¼
1902-1903	1,089	15,029 0 6	517 18 1½	"	13,101 14 3½	13,619 12 5	1,409 8 1
1903-1904	1,165	16,017 7 10	406 6 2	"	13,926 12 3½	14,342 18 5½	1,674 9 4½
1904-1905	1,240	16,007 2 0	449 9 2	"	13,843 10 0¾	14,292 19 2¾	1,713 6 0¼
1905-1906	1,264	16,852 9 7½	631 9 11½	"	14,396 14 5	15,028 14 4½	1,823 15 3
1906-1907	1,308	16,298 17 10	654 4 3½	"	14,246 2 7	14,900 6 10½	1,398 10 11
1907-1908	1,285	17,078 8 3	474 1 3	"	15,304 11 4½	15,778 12 7½	1,299 15 7½
1908-1909	1,269	17,786 8 11	633 5 10½	"	15,828 13 8½	16,461 19 7	1,324 9 4
1909-1910	1,320	17,453 7 7¾	459 16 1	"	15,934 10 4¼	16,394 6 5¼	1,059 1 2½
1910-1911	1,409	19,131 15 7	676 7 10	46 15 5¼	16,540 0 3¼	17,263 3 6½	1,868 12 0½
1911-1912	1,439	17,797 1 2	735 0 8	131 11 0¾	15,722 17 11	16,589 9 7¾	1,207 11 6¼
1912-1913	1,548	18,414 4 1	889 13 3	194 11 9½	8,237 10 8	9,321 15 8½	9,092 8 4½*
	..	402,226 3 4	14,492 5 6½	372 18 3½	328,017 3 6¼	342,892 17 4¼	59,332 9 2¼

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* This increase is due to General Revenue being charged with half of the cost of maintenance of parochial patients, hitherto borne by the parishes concerned.

TABLE No. XVIII.—A Return shewing the General Financial and other Operations of the Lunatic Asylum from the Year 1874-75 to the Year 1912-1913.

Year.	Daily Average Number.	Salaries. and Religious Services.	Wages.	Provisions.	Necessaries.	Clothing, Furniture and Bedding.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1874-75	324.43	1,412 2 10	879 15 7½	3,037 14 1½	139 5 0	487 0 10
1875-76	324.21	1,553 13 10	923 4 10½	2,910 11 7¼	116 13 8¾	387 12 3
1876-77	342.52	1,660 4 11	868 8 2	2,832 18 11	134 15 11½	347 12 11½
1877-78	361.57	1,705 3 10	851 7 0½	2,959 18 10	161 10 6	379 8 6½
1878-79	364.06	1,853 6 4	805 8 10½	3,167 9 11½	224 0 10	333 12 2
1879-80	381.25	1,782 18 2	888 11 2	3,161 17 4	176 4 2	328 10 9½
1880-81	368.48	1,771 16 6	884 1 3	3,272 19 3½	218 3 2	289 10 3
1881-82	358.67	1,784 8 0	861 12 11	2,963 9 9	231 5 4	303 14 5
1882-83	364.06	1,829 3 8	922 2 5	3,152 13 8½	220 19 7	322 0 6½
1883-84	396.05	1,708 12 10	932 15 5½	3,203 7 0	174 4 7	372 11 9½
1884-85	399.98	1,792 10 10	936 2 3½	3,079 11 8	166 7 0	387 4 4
1885-86	382.09	1,843 11 0	923 0 0	3,150 1 10½	176 1 4	345 9 6
1886-87	407.58	1,556 16 7	933 13 2	3,416 13 5	216 19 8	421 12 3
1887-88	398.00	1,533 14 7	994 18 7	3,741 6 1½	270 19 10	408 6 3
1888-89	438.24	1,783 9 9	1,161 7 10	4,280 19 5	358 0 0	438 3 2
1889-90 (6 mons.)	465.17	943 10 10	579 11 11	2,351 14 0	190 8 7	209 9 6
1890-91	496.16	1,918 8 6	1,268 15 0	5,102 14 2	403 6 6	433 4 11½
1891-92	543.93	1,934 9 8	1,462 14 6½	6,035 16 4	424 12 8½	685 7 9
1892-93	558.57	1,969 0 0	1,461 6 9½	5,421 17 7¼	514 18 2	691 17 8½
1983-94	571.98	2,239 1 4	1,509 19 3	5,299 17 4½	494 0 1	599 5 11½
1894-95	592.72	2,394 17 3	2,259 5 2	4,565 11 10½	529 13 7	667 8 10¼
1895-96	636.78	2,357 1 0	2,328 16 7	4,772 11 10¼	499 1 6	625 2 5
1896-97	694.15	2,519 17 9	2,410 18 3	5,336 10 2	545 9 2¾	803 18 8½
1897-98	759.70	2,554 1 11	2,838 16 10	5,470 9 11	615 17 4¼	993 2 4½
1898-99	774.96	2,586 1 2	3,175 7 6	5,342 10 9¾	529 7 0¾	924 14 4½
1899-1900	789.03	2,441 4 10	3,202 3 5	5,367 9 11	581 0 11	977 9 3½
1900-1901	844.32	2,564 0 11	3,198 9 11	5,807 12 5½	781 1 0½	992 2 6½
1901-1902	862.68	2,438 8 6	3,266 7 4	6,007 9 7½	799 8 4½	1,197 6 1¼
1902-1903	915.42	2,486 19 2	3,367 2 11	6,113 5 10¼	799 5 2	1,099 16 1¾
1903-1904	972.20	2,391 1 10	3,419 12 9	6,880 5 2¾	884 2 7	1,408 11 11
1904-1905	1022.26	2,142 4 10	3,470 1 11	7,618 9 3	882 7 4	1,069 3 9
1905-1906	1048.56	2,114 14 6	3,543 15 6	8,342 0 8½	979 19 10½	797 11 10
1906-1907	1048.74	2,230 17 7	3,672 11 10	7,535 11 0	994 15 4½	1,023 19 0
1907-1908	1033.61	2 302 16 7	3,784 15 8	8,084 9 1	305 12 9	1,525 9 7
1908-1909	1050.02	2,376 6 3	3,825 10 3	8,874 4 2	426 3 4	1,212 8 5
1909-1910	1081.00	2.432 0 0	3,834 1 9	8,616 8 1½	460 4 6	..
1910-1911	1137.15	2,451 6 5	3,944 3 1	9,364 13 9	369 15 9	..
1911-1912	1183.81	2,403 14 9	4,001 13 7	8,422 13 7	392 6 0	..
1912-1913	1271.94	2,449 3 2	4,048 7 9	8,445 0 10	571 2 0	..

Year.	Wine, Spirits and Beer.	Surgery and Dispensary.	Funeral Expenses.	Tenants' Repairs.	Farm and Garden.	Miscellaneous and Telephone.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1874-75	90 0 3½	85 19 1½	32 18 6	136 16 7	265 0 6	99 5 7
1875-76	74 6 6	124 6 11	44 7 0	135 13 9	297 14 2½	99 10 5½
1876-77	59 12 6	65 10 6½	36 19 4½	129 13 11½	251 18 2	68 3 4½
1877-78	34 2 9	99 9 7½	41 9 9½	134 15 6½	195 3 1½	192 16 6
1878-79	30 5 9	49 4 7	38 10 1	104 4 8	151 6 4	175 18 10
1879-80	34 11 0	76 13 2	50 1 5	122 3 0½	218 14 5½	222 13 4
1880-81	57 10 0	65 13 2½	110 19 5	122 18 0	211 15 5½	215 12 9
1881-82	48 18 6	49 10 7½	71 4 11	117 0 11	145 15 1	243 3 3
1882-83	30 7 0	32 5 1½	123 12 6	116 1 8	87 1 9½	199 18 5½
1883-84	61 4 0	68 11 8	78 3 3	129 10 9½	97 8 3½	84 11 6½
1884-85	46 18 0	25 18 4	84 10 8½	112 3 7½	122 7 10	98 8 5½
1885-86	56 16 0	30 18 11	108 3 8	125 9 3	132 0 7	112 6 7½
1886-87	56 0 0	68 10 4	52 5 10	120 12 1	122 3 10½	71 12 2
1887-88	65 13 4	67 2 7½	61 5 1½	282 0 2½	151 5 11	109 10 2
1888-89	68 14 0	104 15 7	78 5 9	151 5 8	134 8 4	206 19 9
1889-90 (6 mons.)	32 14 6	101 7 0	41 1 5	105 1 0	88 5 11	88 16 2
1890-91	40 12 0	168 9 10	66 16 0	176 3 3½	160 3 0	190 11 7½
1891-92	45 13 6	141 18 3	78 8 3	190 6 2	171 9 4	175 12 2½
1892-93	41 12 6	207 7 7	71 2 8	233 0 6½	177 14 11	187 6 4
1893-94	37 6 6	184 10 4	79 7 0	191 16 0½	177 14 3	194 12 8½
1894-95	37 2 8	195 3 4	68 5 11	239 19 2¾	194 10 8	234 16 1½
1895-96	39 7 9	197 17 10	47 11 8	238 19 3	197 18 11	235 4 9½
1896-97	33 7 6	194 1 4	50 10 2½	259 7 7	219 4 9	242 16 10½
1897-99	51 0 6	238 4 2½	64 2 11	289 1 8	262 7 3¼	366 2 3½
1898-99	31 10 2½	253 15 2½	68 2 4½	164 17 3¾	153 12 11½	215 13 5¼
1899-1900	35 0 3	218 16 1	72 12 6½	144 19 2½	137 17 9	251 17 1½
1900-1901	39 1 6	133 0 2	45 0 9	163 15 7½	149 17 7	265 3 6½
1901-1902	43 0 6	210 15 0	61 17 4	147 17 7¼	145 14 8¾	254 2 4
1902-1903	44 13 0	220 11 10	46 2 5	171 10 1¾	151 0 4½	262 12 1¾
1903-1904	60 16 0	210 18 3	79 18 4	187 6 10	153 2 4½	266 15 0¾
1904-1905	42 6 6	180 14 6	73 2 2	138 5 6	88 1 2	212 15 3
1905-1906	24 18 3	271 2 6	73 5 7	180 2 5	81 17 3	217 14 1½
1906-1907	22 8 6	318 1 4	64 19 0	162 14 0	33 9 0½	198 13 5
1907-1908	36 19 6	288 18 11½	72 19 6	134 14 0	40 0 6½	362 2 11
1908-1909	23 1 3	264 14 6	72 8 0	173 3 5	27 4 4	184 1 6
1909-1910	55 19 3	255 10 11	70 14 0	80 17 0	96 11 9	213 18 3½
1910-1911	53 8 9	278 13 2	62 16 0	143 0 11	104 2 3	266 17 1
1911-1912	30 8 5	298 8 4	71 5 3	85 5 2	89 15 6	177 14 11
1912-1913	29 19 11	298 6 4	67 16 10	85 13 7	94 1 4	168 6 6

TABLE No. XVIII., *continued.*

Year.	Removal of Lunatics.	Scavengery.	Furniture Public Departments.	Total Cost.	Amount of Reimbursements from contributing Patients, &c.	Cost exclusive of reimbursements from Par. Rates, &c.	Weekly Rate per Head.	Admitted during the Year.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Males.	Females.	Total.
1874-75	16 19 0	..	..	6,682 18 0	888 1 6	5,844 16 6	0 6 10¾	46	38	84
1875-76	4 0 0	..	..	6,671 15 1½	752 1 6	5,919 13 7½	0 6 11¾	58	43	101
1876-77	17 12 8	..	..	6,47 11 5½	827 5 0	5,646 6 5½	0 6 3¾	69	43	112
1877-78	19 0 3	..	..	6,774 6 4½	764 18 10	6,009 7 6½	0 6 4¼	54	49	103
1878-79	11 0 6	..	..	7,004 8 11	159 12 10	6,844 16 1	0 7 2¼	53	51	104
1879-80	14 2 10	..	..	7,007 0 10½	168 7 8	6,908 13 2½	0 6 11	56	59	115
1880-81	30 9 8	..	..	7,251 9 2	191 7 2	7,060 2 0	0 7 4	65	42	107
1881-82	26 9 6	..	..	6,846 13 2½	134 16 1	6,711 17 1½	0 7 2	42	56	98
1882-83	25 10 4	..	..	7,061 16 9½	189 14 5	6,872 2 4½	0 7 2¾	73	68	141
1883-84	24 13 0	..	..	6,935 14 2½	208 6 2	6,727 8 0½	0 6 ·5¾	80	59	139
1884-85	19 10 0	..	..	6,871 12 6	252 13 2	6,618 19 4	0 6 4	56	64	120
1885-86	28 18 1	..	..	7,027 7 3	376 6 9	6,651 0 6	0 6 8	69	70	139
1886-87	30 11 0	..	..	7,067 10 4½	415 15 7	6,651 14 9½	0 6 3½	79	62	141
1887-88	24 2 9	..	..	7,700 ·5 6	365 4 7	7,345 0 11	0 7 0	78	71	149
1888-89	15 4 9	..	..	8,781 14 0	391 0 6	8,390·13 6	0 7 4	92	69	161
1889-90 (6 mos.	10 9 0	..	..	4,755 14 0	151 13 5	4,604 0 7	0 7 7	39	43	82
1890-91	22 1 0	..	..	10,093 10 7½	301 10 0	9,792 0 7½	0 7 7	93	79	172
1891-92	25 3 6	207 5 0	..	11,578 17 2½	471 6 10	11,107 10 4½	0 7 8¾	80	106	186
1892-93	19 3 6	195 12 8	261 0 4	11,453 1 3¾	532 6 0	10,920 15 3¾	0 7 7	78	80	158
1893-94	18 7 9	192 19 0	62 0 6	11,280 18 1	492 16 4	10,788 1 9	0 7 2	75	78	153
1894-95	19 6 6	193 9 4½	49 5 0	11,648 15 6½	384 2 8	11,264 12 10½	0 7 3½	84	85	169
1895-96	27 7 6	192 0 2	47 8 11	11,867 3 1¾	418 13 6	11,448 9 7¾	0 6 10½	90	84	174
1896-97	27 12 0	208 4 0	50 0 0	12,901 18 4¼	458 15 2	12,443 3 2½	0 6 10½	81	106	187
1897-98	19 0 3	199 11 1	99 14 2	14,061 12 9	532 18 9	13,528 13 1	0 6 10	109	95	204
1898-99	39 10 9	126 0 11	..	13,651 4 1	359 10 8	13,291 13 5	0 6 7	88	80	168
1899-1900	24 13 6	104 5 3	..	13,559 10 1	454 9 1	1,305 1 0	0 6 4	96	93	189
1900-1901	26 4 3	116 12 7	163 0 4	14,445 3 2½	525 8 5	13,919 14 9½	0 6 4	104	96	200
1901-1902	29 5 9	115 12 6	42 12 0	14,759 17 8	547 3 10½	14,212 13 9½	0 6 4	99	83	182
1902-1903	22 6 9	111 10 5	94 12 11	15,029 0 6	517 18 1½	14,511 2 4½	0 6 1	118	108	226
1903-1904	17 5 9	22 0 5	35 10 6	16,017 7 10	406 6 2	15,611 1 8	0 6 2	105	101	206
1904-1905	19 18 0	17 17 1	50 18 0	16,006 5 3	449 9 2	15,557 12 10	0 5 10	124	116	240
1905-1906	30 11 3	3 18 0	190 17 10	16,852 9 7½	631 19 11½	16,220 9 8	0 5 11	134	96	230
1906-1907	35 18 3	..	4 19 6	16,298 17 10	654 4 3½	15,644 13 0½	0 5 10	109	125	234
1907-1908	30 12 9	2 16 3	..	17,078 8 3	474 1 3	15,604 7 0	0 6 3¼	148	131	279
1908-1909	22 11 0	1 11 8	..	17,786 8 11	633 5 10½	17,153 3 0½	0 6 5	114	123	237
1909-1910	22 2 3	0 12 6	70 2 1	17,453 7 7¾	459 16 1	16,993 11 6¾	0 6 1½	139	123	262
1910-1911	39 6 4	..	68 15 1	19,131 15 7	723 3 3¼	18,408 12 3¾	0 6 0	164	160	324
1911-1912	31 15 10	1 18 3	133 7 8	17,797 1 2	866 11 8¾	16,930 9 5¼	0 5 5¾	138	130	268
1912-1913	30 1 7	5 14 2	213 12 4	18,414 4 1	889 13 3	17,524 10 10	0 5 4	160	189	349

Year.	Lighting.	Clothing and bedding	Equipment.
	£ s. d.	£ s. d.	£ s. d.
1907-1908	166 9 2	—	—
1908-1909	303 0 10	—	—
1909-1910	311 11 8	791 1 6¾	141 12 0
1910-1911	463 13 4	1,261 8 8	259 9 0
1911-1912	423 9 9	1,079 15 4	153 8 10
1912-1913	399 13 9	1,351 0 6	171 3 6

LEPER'S HOME.

Report for the year ended 31st March, 1913.

Jamaica Leper Asylum, 5th May, 1913.

SIR,

I have the honour to submit, for the information of His Excellency the Governor, the following Report on the Leper Asylum for the financial year ended 31st March, 1913.

Staff.—The Staff remains the same at the end of the period. The Medical Officer was seconded for special duty during the year under the Central Board of Health, but has resumed his substantive appointment as from the 1st April, 1913. During his period of absence the institution was very carefully and efficiently administered by Dr. Curphey for 5 months and by Dr. Peck for one month.

The general behaviour of the inmates has been very good. It is natural that some cases of insubordination will occur in such an asylum, but kind and firm disciplinary measures have been quite sufficient to maintain order.

Buildings and Grounds.—The buildings are maintained in efficient condition. The Nurses quarters have been completed and screened with wire gauze. This protection from flies and mosquitoes has also been afforded to the Superintendent, and the Public Works Department reports that the Matron's quarters will be completed in a very short time. The grounds are clean and in good order and the Farm is in good cultivation.

Miss Mackglashan continues her faithful, devoted and Christian work, and it is pleasing to note that a memorial window has been placed in the Chapel during the year in memory of her sister "Miss Lizzie," still affectionately remembered by the staff and inmates.

On behalf of the inmates I thank the following ladies and gentlemen for gifts and magazines:—His Honour the Custos, Hon. A. A. Fleming, Hon. C. J. Ward, C. M. G.; Messrs. E. Lyons & Sons, F. L. Myers, E. B. Hopkins, A. L. Keeling, E. D. Kinkead, D. Henderson, Mr. and Mrs. Wigan, R. S. Gamble, Educational Supply Co., Jamaica Times, J. V. Leach, Leonard DeCordova, Edwin Charley, C. A. Jeffrey-Smith, Mr. and Mrs. Wood, Mr. and Mrs. Field, J. H. Mapp, Miss Marvin and the students of Shortwood College, W. A. Peat, Mrs. Neish, A. Dolphy, St. Andrews Club, Spanish Town Club, Mrs. Knecht, W. Fraser, C. F. Richards and Dr. Peck.

The usual statistical tables are attached. There were 12 admissions during the year, two of whom were re-admissions. The death rate, 10.9 per cent. is normal. The average longevity of the desease was:

Anaesthetic	Males	25⅓ years
"	Females	13½ "
Tubercular	Males	12½ "
"	Females	10¼ "

The treatment by "Nastin" has been abandoned. After a fair trial it has not proved of any value. The Anti-Leprin imported on my recommendation is now being used, and I look forward to very hopeful results during the current year. This drug is a purified Chaulmoogra Oil.

I have the honour to be,
Sir,
Your Obedient Servant,
W. D. NEISH,
Medical Superintendent.

The Hon. Superintending Medical Officer,
Kingston.

TABLE NO. I.—Return General Statistics for 1912-1913.

		Males.	Females.	Total.	Remarks.
Remaining in Asylum 31/3/1912	...	65	49	114	
Admitted 1912 to 1913	...	9	5	14	
Discharged " "	...	1	...	1	Non Leper
Absconded " "	...	1	1	2	
Died " "	...	8	6	14	
Remaining 31/3/13	...	64	47	111	

TABLE NO. II.—Comparative Statistics from 1st October, 1878, to 31st March, 1913.

Year.	Admissions.		Discharges.		Deaths.		Remaining at end of Year.		Death rate per 100.	Re-admission of Lepers.
	Lepers.	Non-Lepers.	Lepers.	Non-Lepers.	Lepers.	Non-Lepers.	Lepers.	Non-Lepers.		
1878–79	26	39	2	40	10	3	40	31	10.31	...
1879-80	26	43	8	31	7	...	51	33	5.	...
1880 81	39	101	16	72	11	4	63	58	6.69	...
1881-82	38	115	23	107	13	5	65	61	6.50	...
1882 83	40	85	22	96	8	3	75	47	4.38	...
1883–84	30	71	26	63	9	3	70	52	5.38	...
1884–85	33	87	18	80	14	...	71	59	5.78	...
1885–86	39	131	17	114	16	2	77	74	6.	...
1886–87	25	141	17	130	16	6	69	79	6.94	...
1887–88	32	8	...	19	23	8	78	60	16.48	...
1888–89	31	93	4	98	11	6	94	49	6.48	...
Oct. '89 to March '90 ...	9	22	6	35	12	2	82	37	8.04	...
1890–91	34	67	15	88	15	2	86	14	7.74	...
1891–92	38	2	8	9	15	2	106	5	12.16	...
1892–93	26	1	16	4	1	...	100	2	8.27	...
1893–94	23	2	24	3	20	...	79	1	15.74	7
1894–95	26	1	12	...	18	...	75	2	16.82	14
1895–96	37	2	8	4	10	...	94	...	8.62	10
1896–97	40	2	11	2	16	1	106	...	12.5	9
1897–98	38	1	3	2	13	...	127	...	8.96	3
1898–99	20	2	8	3	20	...	118	...	13.6	5
1899–1900	27	3	3	2	20	...	122	1	13.5	6
1900–01	19	3	6	2	15	...	120	2	10.3	1
1901–02	9	1	4	...	14	2	110	2	11.4	2
1902–03	19	...	2	2	17	...	108	2	13.	3
1903–04	33	3	5	3	20	...	117	1	13.7	1
1904–05	25	...	5	...	23	...	114	1	16.1	2
1905–06	19	...	3	...	14	...	115	1	10.4	3
1906–07	14	...	1	...	15	...	113	1	11.62	1
1907 08	12	...	5	1	14	...	105	...	11.1	...
1908–09	24	...	...	1	15	...	112	1	11.6	4
1909–10	12	1	7	...	10	6	102	2	12.27	...
1910–11	24	...	6	1	15	1	103	1	12.6	4
1911–12	25	1	5	1	10	...	113	1	7.7	1
1912–13	12	2	2	1	14	...	109	2	10.9	2

TABLE NO. III.—Return of Admissions for 1912–1913.

No.	Names.	Age Years.		Form of Leprosy.	Years Afflicted.	If re-admitted.	Country.	Late Residence.	Date of Admission
		M.	F.						
1	Violet Newman ...	...	11	T.	(?)	No	Jamaica	Manchester	30.5.12
2	Albertha Williams ...	...	22	Not a Leper	...	"	"	Westmoreland	2.6.12
3	Geo. Johnson ...	45	...	T.	6	"	"	Clarendon	2.7.12
4	Peter Fleming ...	40	..	A.	(?) 20	"	"	Manchester	4.7.12
5	Mary Smith ...	...	50	T.	8	"	"	St. Andrew	6.7.12
6	Behaglee ...	25	...	A.	5 mths	"	India	Manchester	26.7.12
7	Johathan Lawrence ...	25	...	Non Leper	7 yrs	"	Jamaica	Westmoreland	3.8.12
8	Nath. May ...	53	...	T.	7	"	"	Clarendon	9.8.12
9	Joseph. McIntosh ...	...	47	A.	27	"	"	Westmoreland	1.10.12
10	Joseph Morgan ...	30	...	A.	15	"	"	St. Catherine	3.10.12
11	Eliza Gayle ...	...	19	Mixed	3	"	"	Manchester	31.12.12
12	H. Irving ...	21	...	T.	3	yes	"	St. James	3.2.13
13	Jethro Brown ...	20	...	T.	2	"	"	St. Ann	18.1.13
14	Eliza Butler ...	...	35	T.	4	No	"	Clarendon	27.2.13

TABLE IV.—Birthplaces of admitted.

Birthplace	Male.	Female.	Total.
Manchester ...	1	2	3
Westmoreland ...	2	1	3
Clarendon ...	2	1	3
St. Andrew ...	...	1	1
India ...	1	...	1
St. Catherine ...	1	...	1
St. Ann ...	1	...	1
St. James ...	1	...	1
Total ...	9	5	14

TABLE V.—Return of Discharged, 1912 to 1913.

No.	Names.	Age Years. M.	Age Years. F.	Date of Admission.	Date of Discharge.	Total years Afflicted.	Form of Leprosy.	Reason for Discharge.
1	Iehirda ...	...	42	30.5.1911	8.7.1912	1	T.	Absconded
2	Alfred Graham ...	40	...	6.12.1910	1.5.1912	5	T.	Absconded
3	John David ...	35	...	13.12.1911	1.7.1913	Non-	Leper	Not a Leper.

TABLE VI.—Birthplaces of Discharged.

No.	Birthplace.	Male.	Female.	Total.
1	India	1	1	2
2	St. Catherine	1	...	1
	Total	2	1	3

TABLE VII.—Return of Deaths 1912 to 1913.

No.	Names.	Age. M.	Age. F.	Country.	Date of Admission.	Date of Death.	Form of Leprosy.	Total Years Afflicted.	Cause of Death.
1	Geo. Walsh	39	...	Jamaica	9.9.1905	4.4.1912	T.	12	Pul. Tuberculosis
2	Constance Smith	...	31	"	4.6.1911	19.4.1912	T.	11	Chronic Diarrhoea
3	Louis Denton ...	55	...	"	15.2.1910	26.4.1912	A.	35	"
4	Richd. Davis ...	46	...	"	25.5.1885	2.6.1912	A.	35	"
5	Reobertha Edwards	...	32	"	17.9.1904	18.6.1912	T.	10	Pneumonia
6	Peter Fleming	40	...	"	4.7.1912	7.7.1912	A.	(?) 20	Initial Disease
7	Mary Smith ...	...	56	"	6.7.1912	18.8.1912	T.	9	Chronic Diarrhoea
8	John McIntosh	63	...	"	19.6.1910	13.9.1912	A.	14	Peritonitis
9	Ellen Hall ...	...	42	"	27.4.1911	20.12.1912	A.	8	Chronic Diarrhoea
10	Michl. Williams	42	...	"	24.1.1895	6.1.1913	A.	31	Dysentery
11	Rchd. Chambers	40	...	"	17.3.1908	19.2.1913	T.	13	"
12	Eliza McLeary	...	65	"	23.4.1903	24.2.1913	T.	11	Chronic Diarrhoea
13	Theopl. Brown	41	...	"	4.10.1907	25.2.1913	A.	18	"
14	Nancy Newell	...	75	"	14.10.1912	13.3.1913	A.	19	Dysentery

Average longevity of the Disease in those who died.

Anæsthetic	...	Males	25⅓ years
"	...	Female	13½ years
Tubrecular	...	Males	12½ years
"	...	Females	10¼ years

Death rate per 100 10.9

TABLE VIII.—Birthplace of Deceased.

Birthplace.	Male.	Female.	Total.
Trelawny	1	...	1
St. Andrew	1	1	2
Kingston	1	2	3
Manchester	2	1	3
Westmoreland	1	...	1
Portland	1	1	2
St. Catherine	...	1	1
St. Mary	1	...	1
Total	8	6	14

TABLE IX.—Chief Inter-current Diseases treated during 1912–1913.

Disease.	Form of Leprosy.								Total.		Grand Total.
	Tubercular.		Anaesthetic.		(?) Leprosy		Other Diseases.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
General Diseases—											
Mal: Fab.	50	35	23	28	...	...	...	...	73	63	136
Syphilis	...	...	...	...	...	...	...	1	...	1	1
Dysentery	12	6	7	8	..	...	...	...	19	14	33
Disease of Nervous System—											
Epilepsy	...	...	...	...	...	...	1	...	1	...	1
Neuritis	5	7	12	6	...	...	...	...	17	13	30
Eye—											
Conjunctivitis	25	16	31	6	...	...	...	...	56	22	78
Iritis	28	17	14	10	...	...	...	...	42	27	69
Nose—											
Rhinitis	6	8	3	7	...	...	...	...	9	15	24
Ozæna	15	25	8	9	...	...	...	...	23	34	57
Digestive—											
Diarrhoea	90	70	85	68	...	...	...	...	175	138	313
Indigestion	60	80	90	50	...	...	..	...	152	130	280
Constipation	85	76	76	82	...	...	...	...	161	158	319
Urinary System—											
Nephritis	8	7	6	5	...	...	...	...	14	12	26
Cystetes	3	...	...	...	...	...	...	..	...	...	3
Skin—											
Ulcers, etc.	80	70	50	95	...	...	...	..	130	165	295